



CO-CAPTAIN

Cancer prevention among individuals with mental ill-health: CO-adapting and implementing patient navigation for primary cancer prevention

CO-CAPTAIN STANDARDS AND LOCAL SCALE-UP FRAMEWORK FOR INTEGRATED CANCER CARE FOR PEOPLE WITH MENTAL ILL HEALTH

D5.1. REPORT DEFINING THE STANDARDS OF AN INTEGRATED CARE AND LOCAL PLANS

Alejandro Gil-Salmerón and Saray Velert

International Foundation for Integrated Care (IFIC)

WP5 – Blueprint for the transformation of the cancer prevention for individuals with mental ill health integrating the Patient Navigation and delivery of primary cancer prevention programs across health and care systems in EU

Date 29/05/2026



Funded by the
European Union

CO-CAPTAIN has been funded by the European Union's Horizon Europe Programme under the Grant Agreement GA 101104784. The contents of this publication are the sole responsibility of International Foundation for Integrated Care and do not necessarily reflect the opinion of the European Union.

- WP No.: 5
- Deliverable No.: 5.1
- Authors: Alejandro Gil-Salmerón
- Level of Dissemination: Public

Versions:

Version No.	Person in charge	Partner (acronym)	Date	Specifications
1.0	Alejandro Gil-Salmerón	IFIC	12/05/2026	Section 1 to 4.
1.0	Local partners verify section 4	MUW, MUL, DGSSI-CFJAS, UMHRI	15/05/2026	Review of national sections
2.0	Inés Rey Hidalgo, Marta Pisano, Cristina Fernández	FICYT-CSPA-SESPA	26/05/2026	Peer-review process
2.0	Local partners verify section 4	MUW, MUL, DGSSI-CFJAS, UMHRI	27/05/2026	Final review of national sections
2.0	Liuska Sanna and Emmanuela Del Savio	MHE	27/05/2026	Peer-review process
3.0	Alejandro Gil-Salmerón and Saray Velert	IFIC	28/05/2026	Document finalization
3.0	Laura Domínguez	KVC	28/05/2026	Document editing
3.0	Hanna Mues and Igor Grabovac	MUW	31/05/2026	Final version and submission

LIST OF CONTENTS

List of acronyms.....	6
Executive summary	7
Introduction.....	9
SECTION 1. Background	10
1.1. Cancer inequalities among people with mental health problems.....	10
1.2. Fragmentation between mental health, cancer prevention and cancer care..	11
1.3. Integrated care and patient navigation as responses to fragmentation	12
1.4. Purpose, scope and structure of Deliverable 5.1	14
SECTION 2. Methodology.....	16
2.1. Overall methodological approach.....	16
2.2. Development of the Integrated Cancer Care Standards	17
2.2.1. Systematic review methodology.....	17
2.2.2. Delphi consensus methodology.....	18
2.3. Country mapping methodology.....	19
2.3. Methodological strengths and limitations	22
SECTION 3. CO-CAPTAIN standards for integrated cancer prevention and care for people with mental health problems.....	24
3.1. Key findings from the systematic review	24
3.2. Core domains emerging from the evidence.....	25
3.3. Delphi consensus findings	26
3.4. Final CO-CAPTAIN standards for integrated cancer prevention and care.....	29
3.5. Implications of the standards for local adaptation and scale-up.....	31
SECTION 4. Country mapping results and emerging local scale-up plans for the CO-CAPTAIN standards.....	33
4.1. Cross-country overview of mapping findings	33
4.2. Austria: mapping findings and local scale-up plan.....	34
4.2.1. Existing pathway organisation	34

4.2.2. Main fragmentation and implementation gaps	35
4.2.3. Existing enabling factors and good practices.....	36
4.2.4. Priorities for local adaptation and scale-up	37
4.3. Greece: mapping findings and local scale-up plan.....	38
4.3.1. Existing pathway organisation	38
4.3.2. Main fragmentation and implementation gaps	39
4.3.3. Existing enabling factors and good practices.....	41
4.3.4. Priorities for local adaptation and scale-up	42
4.4. Poland: mapping findings and local scale-up plan.....	43
4.4.1. Existing pathway organisation	43
4.4.2. Main fragmentation and implementation gaps	44
4.4.3. Existing enabling factors and good practices.....	45
4.4.4. Priorities for local adaptation and scale-up	46
4.5. Spain: mapping findings and local scale-up plan	48
4.5.1. Existing pathway organisation	48
4.5.2. Main fragmentation and implementation gaps	48
4.5.3. Existing enabling factors and good practices.....	49
4.5.4. Priorities for local adaptation and scale-up	50
4.6. Comparative synthesis: common barriers, enablers and implementation needs	51
SECTION 5. Transformation pathways for scaling integrated cancer prevention and care for people with mental health problems	56
5.1. From fragmented systems to integrated pathways	56
5.2. Phased transformation model for scale-up	57
5.3. Country-specific transformation priorities	63
5.4. Cross-cutting implementation enablers	64
SECTION 6. Strategic recommendations for scale-up.....	68
6.1. Recommendations for service providers and implementing organisations.....	69
6.2. Recommendations for regional and national health authorities	71
6.3. Recommendations for cross-sector collaboration.....	73



6.4. Priorities for sustainability beyond CO-CAPTAIN	75
Conclusions	78
References	81

LIST OF ACRONYMS

- H2020 – Horizon 2020 Programme
- HE – Horizon Europe Programme
- WP – Work Package
- NGO – Non-Governmental Organisation
- GP – General Practitioner
- EOPYY – National Organisation for the Provision of Health Services (Greece)
- DiLO – Fast-track oncology card (Poland)
- ICT – Information and Communication Technologies

EXECUTIVE SUMMARY

This deliverable describes the CO-CAPTAIN integrated cancer care standards and outlines pathways for adapting and scaling them across Austria, Greece, Poland and Spain. People living with mental ill-health often experience lower uptake of prevention and screening, delayed diagnosis, fragmented treatment and reduced continuity of care. The CO-CAPTAIN standards seek to address these inequities by strengthening prevention, early detection, treatment, survivorship and palliative care through integrated care and patient navigation.

The standards were developed through a multi-phase methodology combining a systematic review, a Delphi consensus process, a country mapping exercise and multi-stakeholder workshops. Ten integrated care standards were identified, organised around four domains: (1) identification and assessment, (2) care coordination and team-based delivery, (3) person-centred communication and psychosocial support, and (4) implementation enablers.

The mapping exercise showed that all participating countries have screening programmes, oncology centres, primary care, mental health services and community resources. However, these operate largely in parallel. The main challenge is therefore weak integration between oncology, mental health, primary care, social care and public health systems, rather than the absence of services.

Patient navigation emerged as a central mechanism for improving prevention engagement, referral completion, continuity and psychosocial support. Navigation programmes should be embedded within multidisciplinary systems with clear roles, supervision and sustainable funding.

Country-specific findings highlight different starting points for scale-up: Austria needs to strengthen coordination and communication across fragmented services; Greece should build on community mental health and NGO resources; Poland can connect its strong oncology infrastructure with mental health and social support; and Spain can enhance continuity through its primary care, screening and social-health coordination structures.

A phased transformation model is proposed. Minimum practices include referral protocols, named contacts, adapted communication and basic training. Organised coordination involves formal navigation roles, multidisciplinary collaboration and structured handovers. Mature integrated care systems incorporate digital interoperability, shared care plans, quality and equity monitoring and sustainable governance.

The key implication for decision-makers is that implementation should focus on embedding integrated care functions into routine health and social care systems. Priority actions include formal referral protocols, named coordination roles, patient navigation functions, adapted communication, workforce training, and integration of these actions into the structural programmes of the Ministries of Health and Social Services. This would enable sustainable financing, clearer accountability and long-term implementation beyond project-based arrangements.

Overall, D5.1 provides an evidence-informed blueprint for moving from fragmented, service-centred pathways towards integrated, prevention-oriented and person-centred cancer care for people with mental health problems.

INTRODUCTION

People living with mental ill-health continue to face significant inequalities across the cancer care continuum. They are less likely to participate in prevention and screening programmes, more likely to experience delayed diagnosis and fragmentation during treatment and often receive insufficient psychosocial support during survivorship and palliative care. These inequities reflect both individual factors and systemic failures in how oncology, mental health, primary care, public health and social care services coordinate their activities.

The CO-CAPTAIN project was established in response to these challenges. Within Work Package 5 (WP5), the project aims to develop, validate and scale integrated cancer care standards that support coordinated, prevention-oriented and equitable pathways for people with mental health problems. Deliverable 5.1 brings together evidence from multiple WP5 activities: a systematic review of integrated cancer and mental health care, a Delphi consensus process to identify core standards, a country mapping exercise and a series of workshops with stakeholders in Austria, Greece, Poland and Spain.

This report has three purposes: (1) to present a structured set of integrated cancer care standards addressing key domains such as referral and assessment, care coordination, patient navigation, person-centred communication, psychosocial support, workforce capacity and enabling infrastructure; (2) to examine the barriers and facilitators affecting integrated cancer prevention and care in each participating country; and (3) to identify local priorities and transformation pathways for implementing, adapting and scaling the standards in different contexts. Rather than prescribing a single model, the report proposes a flexible, phased approach that can be adapted to local needs, capacities and system maturity.

SECTION 1. Background

1.1. Cancer inequalities among people with mental health problems

Mental health conditions represent a major public health challenge globally and across Europe, affecting millions of people and contributing substantially to morbidity, mortality, social exclusion, and reduced quality of life. Beyond their psychological and social impact, mental health conditions are increasingly recognised as important determinants of physical health outcomes, particularly in relation to cancer prevention, diagnosis, treatment, and survivorship (Ali et al., 2022; Chierzi et al., 2023; Diogo Gonçalves et al., 2025; Leahy et al., 2021; WHO Regional Office for Europe, 2026; Wienand et al., 2024).

People with mental health problems, particularly severe mental illness, experience significant inequalities across the cancer prevention and care continuum, including prevention, screening, early detection, diagnosis, treatment, survivorship and palliative care. Evidence consistently demonstrates that individuals with conditions such as schizophrenia-spectrum disorders, bipolar disorder, and severe major depression are more likely to experience delayed cancer diagnosis, lower participation in cancer screening and prevention programmes, reduced access to guideline-concordant treatment, and poorer cancer survival outcomes compared with the general population (Chierzi et al., 2023; Leahy et al., 2021; Riis et al., 2026; Svansson et al., 2024; Videbech et al., 2025; Wienand et al., 2024).

These disparities are not solely explained by biological or individual-level factors. Increasingly, the literature highlights the role of systemic and organisational barriers embedded within health and care systems. People with mental health problems often encounter fragmented services, discontinuity of care, poor communication between providers, stigma and diagnostic overshadowing, and insufficient support to navigate complex cancer pathways (Bentson et al., 2023; Glasdam et al., 2023; Leahy et al., 2021; Vendelsøe et al., 2025). As a result, they frequently experience avoidable delays, interruptions in care, unmet supportive needs, and lower engagement with preventive services.

The evidence synthesised in the CO-CAPTAIN systematic review further demonstrates that people with mental health problems face barriers across all phases of the cancer prevention and care continuum (Gil-Salmerón et al., 2026). These barriers are often reinforced by socioeconomic disadvantage, unstable housing, limited social support, reduced health literacy, and organisational fragmentation between cancer care, mental health, primary care, and social care systems.

Importantly, inequities in cancer outcomes among people with mental health problems reflect broader structural and organisational failures within healthcare systems rather than isolated clinical problems. Consequently, reducing these inequalities requires system-level responses capable of improving coordination, continuity, accessibility, and person-centredness across services and sectors.

1.2. Fragmentation between mental health, cancer prevention and cancer care

Despite growing recognition of the need for integrated and person-centred healthcare, cancer prevention and cancer care systems remain highly fragmented for people with mental health problems. Across many health systems, cancer care, mental health, primary care, and social support services continue to operate within separate organisational, professional, and financing structures, resulting in discontinuities in care delivery and coordination (Lennox-Chhugani, 2021; Looman et al., 2021).

The systematic review conducted within CO-CAPTAIN identified fragmentation as one of the central challenges affecting the quality and accessibility of cancer care for people with mental health problems (Gil-Salmerón et al., 2026). Individuals frequently navigate complex pathways involving multiple providers and institutions with limited coordination mechanisms, unclear accountability, and insufficient communication between services. In practice, this fragmentation manifests through inconsistent referral processes, lack of shared care planning, poor information exchange, duplication of assessments, and loss to follow-up during key transitions across the care continuum.

Particular challenges emerge at the interfaces between cancer care and mental health services. Cancer care professionals may feel insufficiently prepared to address mental health needs, while mental health services may have limited involvement in cancer

prevention or cancer-related care coordination. Similarly, primary care services often struggle to act as effective coordinators across sectors due to workforce pressures, information-sharing barriers, and unclear role definitions (Leahy et al., 2021; Lombardo et al., 2025; Svansson et al., 2024).

Stigma and diagnostic overshadowing further exacerbate fragmentation (Schäfer et al., 2026). People with mental health problems may experience their physical symptoms being minimised or misattributed to psychiatric conditions, contributing to delayed investigations and reduced access to appropriate prevention and treatment pathways. In addition, many individuals face practical and social barriers, including transportation difficulties, unstable housing, poverty, social isolation, and limited health literacy, which remain insufficiently addressed within traditional disease-centred care models.

The fragmentation observed across systems also extends to governance, digital infrastructure, workforce training, and financing mechanisms. The absence of shared organisational standards and operational coordination models creates uncertainty regarding professional roles, referral responsibilities, continuity arrangements, and accountability structures (Khan et al., 2017; Sullivan-Taylor et al., 2022). Consequently, integration often depends on informal relationships, local champions, or time-limited initiatives rather than sustainable system-wide arrangements.

These challenges highlight the need for coordinated, operational and implementation-oriented approaches capable of bridging organisational and professional boundaries across cancer prevention, cancer care, mental health, primary care, and community services.

1.3. Integrated care and patient navigation as responses to fragmentation

Integrated care has increasingly been recognised as a key strategy for addressing fragmentation and improving outcomes for people with complex and multidimensional health and social needs. Within the context of cancer and mental health, integrated care aims to coordinate services around the needs of the individual, ensuring continuity, accessibility, person-centredness, and collaboration across providers and sectors (Lennox-Chhugani, 2021).

Existing evidence suggests that integrated approaches can improve engagement with cancer prevention and screening programmes, strengthen continuity of care, reduce avoidable delays, and support better communication between services for people with mental health problems. However, despite widespread policy support for integrated care, implementation remains inconsistent and operational guidance on how to organise coordination across services is often lacking (Khan et al., 2017; Sullivan-Taylor et al., 2022).

One of the most promising approaches identified in the literature is patient navigation and case management. The CO-CAPTAIN systematic review identified navigation-based and collaborative care interventions as particularly relevant for reducing barriers to cancer prevention and improving continuity across fragmented pathways (Carmichael et al., 2023; Chan et al., 2023; Gil-Salmerón et al., 2026). Navigation interventions commonly include proactive outreach, appointment coordination, tailored education, follow-up, psychosocial support, facilitation of referrals, and assistance in overcoming practical barriers to care.

Patient navigation is particularly relevant for people with mental health problems because it addresses both clinical and non-clinical barriers that affect engagement with prevention and cancer care services. By acting as a coordination and bridging mechanism across cancer care, mental health, primary care, and community systems, navigation can support continuity during transitions, strengthen communication between providers, and facilitate more person-centred and equitable care pathways.

At the organisational level, integrated care and patient navigation also require supportive enabling conditions, including multidisciplinary collaboration, clearly defined professional roles, workforce training, shared accountability structures, referral and communication mechanisms, and governance arrangements that support continuity across sectors (Busetto et al., 2018; Peytremann-Bridevaux et al., 2021).

The Delphi study conducted within CO-CAPTAIN highlighted broad international consensus regarding the importance of early identification of mental health needs, coordinated multidisciplinary structures, tailored navigation and case management, continuity mechanisms, adapted communication, and cross-sector collaboration as core components of integrated cancer and mental health care (Gil-Salmerón et al., 2026).

These findings reinforce the need for practical and scalable organisational standards capable of operationalising integrated care principles within routine service delivery.

Consequently, integrated care and patient navigation should not be understood as isolated interventions, but rather as components of broader system transformation efforts aimed at reducing inequalities, improving coordination, and strengthening equity-oriented cancer prevention and care for people with mental health problems.

1.4. Purpose, scope and structure of Deliverable 5.1

Deliverable 5.1 forms part of Work Package 5 (WP5) of the CO-CAPTAIN project, which focuses on developing a blueprint for strengthening integrated cancer prevention and care for people with mental health problems through the integration of patient navigation and integrated care approaches across European health and care systems.

The overall objective of WP5 is to support health and care administrations in mobilising investments and strengthening integrated cancer prevention and care pathways for people with mental health problems, with the broader aim of reducing health inequalities and promoting equitable access to preventive and supportive services.

Specifically, Deliverable 5.1 aims to:

- develop and validate a set of standards for integrated cancer care and patient navigation for people with mental health problems;
- identify organisational, workforce, governance, and system-level requirements for implementation;
- map existing services, policies, resources, and coordination mechanisms across participating countries;
- support the co-design of local adaptation and scale-up plans;
- provide a strategic implementation framework to guide future transformation and scaling efforts across different health system contexts.

To achieve these objectives, the deliverable adopts a multi-phase and evidence-informed methodological approach combining systematic review evidence, expert consensus

development through a Delphi process, country-level mapping activities, and multi-stakeholder workshops focused on implementation and policy translation.

The deliverable is structured into six main sections. Following the background and methodological sections, the report presents the validated CO-CAPTAIN standards for integrated cancer care for people with mental health problems, including findings from the systematic review and Delphi consensus process. Subsequent sections present the results of country-level mapping activities and local scale-up plans, followed by the identification of transformation pathways and strategic recommendations to support future implementation, sustainability, and policy integration across European health systems.

SECTION 2. Methodology

2.1. Overall methodological approach

WP5 adopted a multi-phase, evidence-informed and co-designed methodological approach to support the development, validation, adaptation and future scale-up of integrated cancer care standards for people with mental health problems. The methodological strategy combined evidence synthesis, expert consensus development, system mapping, and multi-stakeholder policy co-design activities across the participating countries.

The work was designed to progressively move from evidence generation towards implementation and policy translation. First, a systematic review was conducted to identify existing integrated care models, implementation mechanisms, barriers and enabling factors relevant to cancer care for people with mental ill health.

Building on this evidence base, a modified Delphi process was conducted to develop and validate a set of consensus-based standards for integrated cancer and mental health care. The resulting standards were subsequently used to guide country-level mapping activities and multi-stakeholder workshops focused on implementation feasibility, adaptation, and policy translation.

The overall methodology was grounded in principles of integrated care, equity-oriented healthcare, co-production, and implementation science. Particular emphasis was placed on operationalising coordination mechanisms across cancer care, mental health, primary care, and social care systems, while ensuring flexibility for adaptation across different health system contexts.

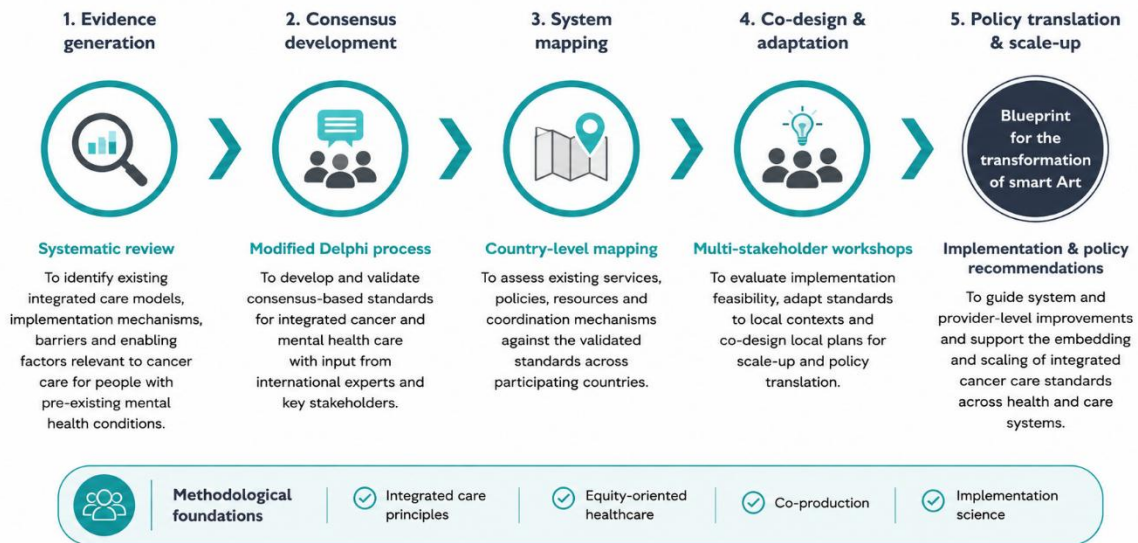


Figure 1. Methodological framework for the development, validation and scale-up of the CO-CAPTAIN integrated cancer care standards

2.2. Development of the Integrated Cancer Care Standards

2.2.1. Systematic review methodology

A systematic review was conducted to identify and synthesise evidence on integrated cancer and mental health care interventions for people with mental health problems, particularly severe mental illness. The review aimed to identify key intervention typologies, coordination mechanisms, implementation strategies, and contextual factors shaping the delivery of integrated care across the cancer prevention and care continuum.

The review followed PRISMA guidelines and was registered in PROSPERO (Registration ID: CRD420251120806). Six electronic databases (CINAHL, Web of Science, Medline, PsycINFO, Scopus, and Embase) were searched from inception to July 2025. Eligible studies included empirical research examining integrated care interventions addressing cancer prevention, diagnosis, treatment, survivorship, or palliative care among adults with people with mental health problems.

Data extraction focused on intervention characteristics, implementation mechanisms, coordination approaches, contextual factors, and reported outcomes. Given the

heterogeneity of included studies, findings were synthesised narratively using thematic analysis. Particular attention was paid to mechanisms supporting integration across cancer care, mental health, primary care, and social services.

The systematic review provided the evidence base for the initial development of the CO-CAPTAIN standards and informed subsequent consensus-building activities.

2.2.2. Delphi consensus methodology

A two-round modified Delphi process was conducted to develop consensus-based standards for integrated cancer and mental health care. The Delphi study aimed to operationalise integrated care principles into actionable organisational standards capable of supporting coordination across cancer care, mental health, primary care, and social care systems.

Draft standards were initially developed based on findings from the systematic review and refined through iterative expert consultation. The standards were designed as practical organisational expectations, distinguishing between minimum expected practice and higher-maturity “stretch” practice.

A purposive international panel was assembled through consortium-led recruitment across Austria, Greece, Poland, Spain, and additional international networks. Participants included experts in cancer care, mental health, primary care, psychosocial support, public health, integrated care, patient navigation, health system organisation, NGOs and community services.

In total, 33 panellists participated in Round 1 and 27 panellists participated in Round 2. Panellists evaluated ten draft standards using five-point Likert scales across five dimensions: relevance, feasibility, clarity, anticipated impact, and priority for inclusion. Open-text comments were also collected to identify implementation concerns, missing elements and areas requiring clarification.

Consensus was predefined as $\geq 70\%$ of panellists rating a standard between 4–5 on priority for inclusion, combined with a median score ≥ 4 . Quantitative responses were analysed using medians, interquartile ranges and percentage agreement, while

qualitative comments were analysed thematically to support refinement between rounds.

After Round 1, seven of the ten standards reached consensus. All standards were retained and revised, as the purpose of the Delphi process was not only to exclude items but also to improve clarity, feasibility and implementation relevance. In Round 2, nine of the ten standards reached consensus. The remaining standard, related to digital infrastructure and governance, was retained because participants recognised its strategic importance and the lack of consensus appeared to reflect feasibility concerns rather than disagreement with its relevance.

The Delphi process resulted in a final framework comprising ten standards organised into four domains: identification and assessment; care coordination and team-based delivery; person-centred communication and tailored support; and implementation enablers and system support. The final framework was designed as a practical quality-improvement and implementation framework rather than a purely conceptual model.

2.3. Country mapping methodology

Following the development and validation of the CO-CAPTAIN standards for integrated cancer and mental health care, a country-level mapping exercise was conducted to assess the organisation, coordination mechanisms, resources, and implementation readiness of existing cancer prevention and cancer care pathways for people with mental health problems across participating countries.

The mapping exercise was operationalised through a standardised Excel-based mapping template developed by the consortium to ensure consistency, comparability, and systematic data collection across Austria, Greece, Poland, and Spain. The template functioned as a structured implementation assessment tool designed to map current service organisation, coordination mechanisms, policy environments, and system readiness in relation to the validated Integrated Cancer Care standards.

While the template provided a common analytical structure across countries, partners were encouraged to adapt the level of detail and contextual interpretation according to local health system organisation, data availability, and implementation realities.

The mapping template guided partners in documenting key organisational and system-level components relevant to integrated cancer and mental health care, including:

- existing pathways across cancer prevention, screening, diagnosis, treatment, survivorship, and palliative care;
- mental health service involvement across the cancer prevention and care continuum;
- referral and coordination mechanisms between cancer care, mental health, primary care, and social care;
- patient navigation and case management structures;
- governance and policy frameworks;
- workforce roles and competencies;
- digital infrastructure and information-sharing arrangements;
- community and social support services;
- existing integrated care initiatives and implementation mechanisms;
- barriers and enabling factors affecting implementation and scale-up.

The mapping process combined documentary analysis, service mapping, stakeholder consultation, and contextual assessment of existing organisational arrangements. Partners reviewed national and regional cancer plans, mental health policies, clinical pathways, organisational protocols, and local service structures relevant to people with mental health problems.

The methodology was explicitly implementation-oriented and grounded in the validated CO-CAPTAIN standards. Rather than functioning solely as a descriptive inventory of services, the mapping exercise aimed to assess the extent to which current systems aligned with the proposed standards for integrated cancer and mental health care. Particular attention was paid to operational coordination mechanisms across organisational boundaries, including continuity arrangements, multidisciplinary collaboration, navigation functions, referral systems, communication processes, and accountability structures. The mapping also examined whether coordination

mechanisms were formalised through protocols, pathways, or designated roles, or whether they depended primarily on informal professional relationships and local practices.

The mapping template also incorporated an implementation readiness and maturity perspective by encouraging partners to identify both existing system capacities and areas requiring further development. This approach aligned with the “minimum” and “stretch” practice philosophy underpinning the CO-CAPTAIN standards framework, recognising that implementation feasibility and organisational maturity vary across health system contexts.

In addition to structural and organisational dimensions, the mapping exercise incorporated an equity-oriented perspective, assessing how existing pathways addressed the psychosocial, practical, and accessibility needs of people with mental health problems. This included examining barriers related to continuity of care, social support, communication, stigma, navigation complexity, and service accessibility.

The outputs generated through the mapping exercise included:

- country-level pathway maps and service overviews;
- identification of system-level gaps and fragmentation points;
- analysis of implementation barriers and enabling factors;
- assessment of readiness for adaptation and scale-up of integrated cancer care standards;
- identification of priority standards for local implementation;
- and preliminary transformation and policy priorities.

The mapping findings were subsequently validated and refined through multi-stakeholder workshops conducted under Tasks 5.1 and 5.2. These workshops enabled stakeholders to confirm, nuance or challenge the mapping findings, identify implementation priorities, and explore the feasibility of scaling the CO-CAPTAIN standards within their national and regional contexts.

The mapping exercise therefore functioned not only as a descriptive assessment activity, but as a strategic bridge between evidence generation, implementation planning, local adaptation and policy translation within the CO-CAPTAIN project.

2.3. Methodological strengths and limitations

This deliverable used a multi-method approach combining evidence synthesis, expert consensus, country mapping and stakeholder validation. This is a key strength, as it ensured that the CO-CAPTAIN standards and scale-up priorities were informed by both published evidence and real-world implementation contexts.

The sequential design strengthened the methodology. Findings from the systematic review informed the draft standards, which were then refined through a Delphi process assessing relevance, feasibility, clarity, anticipated impact and priority for inclusion. The multidisciplinary and international Delphi panel brought together perspectives from cancer care, mental health, primary care, public health, integrated care, psychosocial support, NGOs and community services. Retaining and refining standards that did not initially reach consensus was appropriate, as lower agreement often reflected feasibility concerns rather than disagreement with their importance.

The standardised country mapping template enabled systematic comparison across Austria, Greece, Poland and Spain, while still allowing local contextual interpretation. Multi-stakeholder workshops further strengthened the findings by validating the mapping results and identifying feasible implementation priorities in each country.

Some limitations should be considered. The evidence base was heterogeneous, limiting direct comparison across interventions and outcomes. The standards should therefore be interpreted as evidence-informed and consensus-based organisational standards, rather than clinical guidelines based on high-certainty effectiveness evidence. In addition, the Delphi panel and workshops relied on purposive participation and may not fully represent all professional groups, service users, carers, policy-makers or regional contexts. The country mapping also depended on available documents, local partner knowledge and stakeholder input, meaning that informal or undocumented practices may not have been fully captured.

Finally, the local scale-up plans should be understood as emerging implementation priorities rather than fully operationalised plans. Further work will be needed to define governance, resources, timelines, indicators and accountability mechanisms. Overall, the methodology provides a robust and pragmatic basis for developing implementation-oriented standards adaptable to different European health and care systems.

SECTION 3. CO-CAPTAIN standards for integrated cancer prevention and care for people with mental health problems

3.1. Key findings from the systematic review

The systematic review conducted within the CO-CAPTAIN project provided the evidence base for the development of the integrated cancer prevention and care standards. The review identified a limited but growing body of international evidence on interventions designed to improve cancer prevention and cancer care for people with mental health problems, particularly severe mental illness.

Across the included studies, the evidence showed that people with mental health problems experience inequities throughout the cancer prevention and care continuum, including prevention, screening, diagnosis, treatment, survivorship and palliative care. These inequities were not only linked to individual clinical complexity, but also to modifiable organisational and system-level failures. In particular, the review highlighted that people with mental health problems often face delayed access, reduced engagement with preventive services, discontinuity of care, lower likelihood of receiving guideline-concordant treatment, and poorer overall cancer outcomes.

A central finding of the review was the persistent fragmentation between cancer care, mental health, primary care and social care services. This fragmentation was reflected in weak referral mechanisms, poor communication between providers, lack of shared care planning, unclear professional accountability and insufficient continuity during transitions across the cancer pathway. These organisational gaps were often compounded by stigma, diagnostic overshadowing, social disadvantage, transport difficulties, unstable housing, limited social support and low health literacy.

Despite these challenges, the review identified several promising models of integrated cancer and mental health care. These clustered into three broad typologies: case management and navigation-based interventions; collaborative and co-located care models; and broader structural integration approaches. Navigation and case management interventions were particularly relevant because they combined practical

support, tailored education, appointment coordination, proactive follow-up and referral facilitation. Collaborative and co-located care models focused on strengthening shared care planning and multidisciplinary collaboration between cancer, mental health and primary care professionals. Structural integration models aimed to redesign organisational processes through early identification of mental health needs, carer engagement, multidisciplinary coordination and continuity planning.

The review also demonstrated that implementation remains challenging. Common barriers included workforce constraints, limited training, unclear roles, weak digital interoperability, lack of sustainable financing, limited monitoring of fidelity and outcomes, and dependence on local champions or temporary project-based arrangements. These findings showed that integrated care requires more than general principles; it requires concrete organisational mechanisms that define how coordination, navigation, communication, referral, continuity and accountability should operate across service boundaries.

The systematic review therefore provided the foundation for the CO-CAPTAIN standards by identifying both the need for integrated cancer prevention and care for people with mental health problems and the operational components required to make such care implementable in routine practice.

3.2. Core domains emerging from the evidence

The evidence from the systematic review suggested that integrated cancer and mental health care should be understood as a multi-dimensional organisational model rather than as a single intervention. Although the included studies varied in design, setting and target population, several recurring domains emerged as essential for improving coordination, continuity and equity for people with mental health problems.

The first domain was early identification and assessment. The review highlighted that mental health needs are often under-recognised in cancer pathways, particularly when cancer care services lack systematic screening or referral procedures. Early identification is therefore essential to ensure that mental health needs, psychosocial risks and support requirements are recognised from the beginning of the cancer pathway and reassessed at key transition points.

The second domain was care coordination and team-based delivery. The evidence consistently showed that fragmentation between cancer care, mental health, primary care and social services is a major barrier to equitable care. Integrated care therefore requires structured multidisciplinary collaboration, named points of contact, shared responsibility, clear referral processes, and continuity arrangements that extend across organisational boundaries. Navigation and case management emerged as key coordination functions because they help bridge gaps between services and support people who face complex clinical, social and practical barriers.

The third domain was person-centred communication and tailored support. People with mental health problems may require adapted information, additional time, supported decision-making, flexible communication formats and tailored support to engage meaningfully with cancer prevention and care. The evidence also highlighted the importance of addressing social needs, caregiver involvement, substance use, health behaviours and supportive care needs in ways that are non-judgemental, rights-based and adapted to the person's cognitive, emotional, cultural and social context.

The fourth domain was system integration and implementation capacity. The review showed that integrated care cannot be sustained without enabling conditions at organisational and system level. These include workforce training, supervision, governance, digital infrastructure, quality monitoring, financing mechanisms and cross-sector accountability. Importantly, the feasibility of these components varies across health systems, making it necessary to distinguish between minimum expected practice and more advanced stretch practice.

Together, these domains shaped the structure of the CO-CAPTAIN standards framework. They demonstrate that integrated cancer prevention and care for people with mental health problems depends on a coordinated set of organisational routines, professional roles, communication mechanisms and governance arrangements that support continuity across the cancer prevention and care continuum.

3.3. Delphi consensus findings

Building on the systematic review, CO-CAPTAIN conducted a two-round modified Delphi process to refine and validate a set of implementation-oriented standards for integrated

cancer prevention and care for people with mental health problems. The Delphi process was designed to translate evidence on fragmented cancer, mental health, primary care and social care pathways into actionable organisational standards that could guide pathway design, service organisation, workforce development, quality improvement and future scale-up.

The Delphi panel brought together a multidisciplinary and international group of stakeholders with expertise in oncology, mental health, primary care, public health, integrated care, psychosocial support, research, non-governmental organisations and community services. Round 1 included 33 panellists and Round 2 included 27 panellists, of whom 17 had also participated in Round 1. Participants rated ten draft standards across five dimensions: relevance, feasibility, clarity, anticipated impact and priority for inclusion. Consensus was predefined as at least 70% of panellists rating priority for inclusion as 4 or 5, combined with a median priority score of at least 4. Priority for inclusion was used as the primary decision criterion, while the remaining dimensions informed interpretation and refinement between rounds.

In Round 1, seven of the ten standards reached consensus for inclusion. These covered early identification of mental health needs, coordinated team-based structures, tailored navigation and case management, tailored education and supported shared decision-making, workforce training and team support, continuity and cross-sector coordination, and social and caregiver support. Agreement for these standards was high, ranging from 78.8% to 90.9%, with a median priority score of 5. Three standards did not reach consensus in Round 1: health behaviours and substance use support, quality monitoring and supervision, and digital infrastructure and governance. These standards were not rejected, but were revised to improve clarity, feasibility and implementation relevance.

In Round 2, nine of the ten standards reached consensus. The two standards that had not reached consensus in Round 1 on health behaviours/substance use and quality monitoring/supervision both reached consensus after being reframed in more operational and feasible terms. Health behaviour support was broadened beyond smoking cessation to include stage-appropriate support for substance use, alcohol and other health behaviours, with clear pathways to mental health input and follow-up. Quality assurance was reframed from a potentially burdensome “fidelity monitoring”

approach to a lightweight, actionable continuous improvement process with clear ownership and scalability in both paper-based and digital systems.

The only standard that did not reach formal consensus in Round 2 was digital infrastructure and governance, with 66.7% agreement. However, the pattern of responses suggested uncertainty about feasibility rather than disagreement about its strategic importance. For this reason, the standard was retained in the final framework as an enabling condition for mature integrated care, while being framed as a stepwise area for development according to local digital maturity. This distinction is important: digital infrastructure should be presented as strategically necessary for scale-up, but not as a prerequisite for beginning implementation.

Qualitative feedback from panellists played a central role in strengthening the standards. Between rounds, the standards evolved from broad statements of principle into more operational requirements. Screening was specified as occurring at first oncology contact or within approximately 30 days, with repetition at predefined milestones. Team-based care was clarified through named roles, accountability mechanisms and consent-based involvement of supporters. Navigation and case management were strengthened through defined responsibilities, boundaries, documentation requirements and escalation pathways. Continuity was operationalised through named responsibility, standardised handovers and timely follow-up at key transitions. Social support was translated into defined roles and referral pathways to social, municipal/community, legal and benefits services.

Across both rounds, panellists also identified cross-cutting principles that should guide implementation across settings. These included recognising mental health as integral to cancer care; providing stigma-sensitive, equity-oriented and proportionate support; involving people with lived experience and caregivers through co-production; adopting a whole-person approach across the cancer prevention and care continuum; and strengthening cross-sector collaboration across oncology, mental health, primary care, social care and community services. Panellists also emphasised phased implementation, starting with feasible minimum expected practices and progressing towards stretch practice as workforce capacity, governance, financing and digital infrastructure mature.

Overall, the Delphi process confirmed that integrated cancer and mental health care cannot be reduced to a single intervention or professional role. Instead, it requires a structured set of organisational routines, coordination mechanisms and enabling conditions. The resulting CO-CAPTAIN standards provide a flexible but concrete framework for operationalising integrated cancer prevention and care for people with mental health problems across diverse European health system contexts.

3.4. Final CO-CAPTAIN standards for integrated cancer prevention and care

The final CO-CAPTAIN framework comprises ten organisational standards grouped into four interrelated domains: identification and assessment; care coordination and team-based delivery; person-centred communication and tailored support; and implementation enablers and system support. Nine standards reached formal Delphi consensus by Round 2. The tenth standard, digital infrastructure and governance, was retained because it represents a strategic enabling condition for mature integrated care, although its feasibility varies substantially across settings.

The standards are designed to translate integrated care principles into concrete organisational practices. They define what needs to be in place to support coordinated, equitable and person-centred cancer prevention and care for people with mental health problems. They are not intended to replace local clinical protocols, but to provide a common implementation framework that can guide pathway design, service organisation, workforce development, governance, quality improvement and local scale-up planning.

A key feature of the framework is the distinction between **minimum expected practice** and **stretch practice**. Minimum expected practice refers to baseline organisational arrangements that should be feasible across most settings, including those with limited integration maturity. Stretch practice refers to more advanced arrangements that may be achievable in systems with stronger workforce capacity, digital infrastructure, governance arrangements and cross-sector collaboration. This staged structure reflects the Delphi finding that standards were considered highly relevant and impactful, but that feasibility varied depending on workforce, organisational and digital maturity.

The ten standards cover the following areas:

Table 1. CO-CAPTAIN standards for integrated cancer prevention and care for people with mental health problems

Domain	CO-CAPTAIN standards
1. Identification and assessment	1. Early, systematic identification of mental health needs across the cancer prevention and care pathway
2. Care coordination and team-based delivery	2. Coordinated team-based structures with clear roles and accountability 3. Tailored navigation and case management 6. Continuity and cross-sector coordination
3. Person-centred communication and tailored support	4. Tailored patient education and supported shared decision-making 7. Stage-appropriate support for health behaviours, substance use and supportive care needs 8. Social needs and caregiver support embedded in care
4. Implementation enablers and system support	5. Workforce training and team support 9. Quality monitoring, supervision and continuous improvement 10. Digital infrastructure and governance

The Delphi process clarified that the standards should be understood as a staged implementation framework rather than a fixed service model. Minimum expected practice includes practical and immediately actionable mechanisms such as brief validated screening at first oncology contact, named points of contact, defined navigator or case manager responsibilities, documented care plans, referral pathways, structured handovers, adapted patient information, workforce support mechanisms and low-burden quality monitoring. Stretch practice includes more mature arrangements such as shared care plans across services, secure communication tools, closed-loop referrals, decision-support prompts, interoperable digital systems, cross-sector dashboards, formal provider agreements and integrated governance arrangements.

3.5. Implications of the standards for local adaptation and scale-up

The CO-CAPTAIN standards have direct implications for local adaptation and scale-up because they provide a structured framework for assessing current systems, identifying implementation gaps and planning progressive transformation. Their main value lies in translating broad principles of integrated care into operational requirements that can be adapted to different national, regional and organisational contexts (Breneol et al., 2022).

In practical terms, local teams can use the standards as a structured implementation sequence. They can first assess whether current pathways meet minimum expected practice across the four domains. They can then identify gaps in roles, referral pathways, handovers, communication routines, workforce support, social support mechanisms and data-sharing arrangements. Based on this assessment, stakeholders can prioritise feasible changes according to local maturity, available resources and organisational readiness, assign responsibility for implementation, define milestones and monitor progress through lightweight quality improvement indicators. Stretch practice can then be used as a medium-term scale-up direction rather than as an immediate requirement.

The standards also provide a shared language for local stakeholders. By defining expected practices around identification, navigation, coordination, continuity, communication, workforce support, quality monitoring and digital governance, the framework helps different actors understand what integrated cancer prevention and care for people with mental health problems should involve in practice. This is particularly important in fragmented systems where cancer care, mental health, primary care and social care professionals may have different expectations, responsibilities and working cultures.

They further support implementation planning by helping local systems assess whether essential structures are already in place, such as referral pathways, named coordination roles, multidisciplinary forums, navigation functions, social support mechanisms, data-sharing arrangements and workforce training. Where these elements are absent or underdeveloped, the standards help identify concrete areas for improvement.

The distinction between minimum and stretch practice makes the framework suitable for phased implementation. Not all countries or organisations will be able to implement advanced integrated care arrangements immediately. However, all settings can use the minimum expected practices as a starting point and then progressively move towards higher maturity as capacity, resources, governance and digital infrastructure develop.

In addition, the standards provide the basis for the country mapping and validation workshops conducted within WP5. Draft mappings were used to assess how existing pathways aligned with the validated standards, while workshops enabled stakeholders to validate the accuracy of the mappings, identify feasible standards for scale-up and define system or policy gaps related to workforce, IT, financing and governance.

The standards also clarify that patient navigation should not be implemented as a stand-alone role disconnected from the wider system. The Delphi findings indicate that navigation and case management should be embedded within broader coordination structures, with defined responsibilities, boundaries, escalation pathways, referral mechanisms, documentation routines and handover processes. This is essential to avoid creating another isolated service layer. Navigation should instead function as a coordination mechanism that strengthens access, engagement and continuity across the cancer prevention and care continuum.

Finally, the standards provide a foundation for future policy development. Because they are expressed as organisational expectations, they can inform local implementation plans, service specifications, workforce competency frameworks, commissioning requirements, quality indicators and policy recommendations. In this way, the CO-CAPTAIN standards function not only as a technical framework, but as a practical roadmap for scaling integrated cancer prevention and care for people with mental health problems across European health and care systems.

SECTION 4. Country mapping results and emerging local scale-up plans for the CO-CAPTAIN standards

4.1. Cross-country overview of mapping findings

The country mapping exercise across Austria, Greece, Poland and Spain showed that all participating countries have relevant components of cancer prevention and care infrastructure, including screening, diagnosis, treatment and specialist oncology services, although palliative care, survivorship and psychosocial support vary considerably in maturity and availability. These services are primarily organised through mainstream cancer care, primary care and public health systems, with varying levels of involvement from community organisations and psychosocial support services.

The preliminary mapping findings were validated and refined through multi-stakeholder workshops conducted in each participating country under Task 5.2. These workshops included representatives from cancer care, mental health, primary care, social care, policy, NGOs, patient navigation initiatives and people with lived experience. Stakeholder discussions confirmed the main fragmentation patterns identified during the mapping exercise, while also providing operational insights on workforce challenges, coordination barriers, navigation functions, digital interoperability and implementation feasibility.

Across all countries, stakeholders confirmed that mental health services, cancer care services, primary care and social support systems continue to operate largely in parallel rather than through integrated pathways. People with mental health problems generally access cancer prevention and care through the same pathways as the general population, rather than through dedicated referral, navigation or continuity mechanisms linked to mental health services. Psycho-oncology services exist in several contexts, but they are mainly oriented towards psychological distress related to cancer diagnosis and treatment, rather than proactively supporting people with mental health problems throughout the cancer prevention and care continuum.

The mapping and workshop findings identified several shared implementation gaps, including weak communication between providers, unclear referral responsibilities, inconsistent follow-up procedures, limited continuity across transitions, stigma and diagnostic overshadowing, workforce pressures, and fragmented digital systems.

Patient navigation and case management were consistently perceived as valuable mechanisms for improving continuity, facilitating communication, supporting engagement and addressing practical and psychosocial barriers. However, stakeholders emphasised that navigation should be embedded within wider coordination structures rather than introduced as an isolated role.

Despite these common barriers, each country also demonstrated important readiness assets. Austria and Poland have relatively structured oncology frameworks linked to national cancer strategies and specialised oncology centres. Spain has strong primary care and population-based screening infrastructures, particularly within the Community of Madrid. Greece has important community mental health and NGO-based resources, especially through Mobile Mental Health Units and psychosocial support organisations. These differences indicate that implementation strategies will need to be adapted to local maturity, workforce capacity, governance arrangements and digital readiness.

Overall, the cross-country findings suggest that the principal challenge is not the absence of cancer prevention or cancer care services, but the limited integration of these services with mental health, primary care, social care and community support systems. The CO-CAPTAIN standards were therefore perceived as a relevant and potentially scalable framework for strengthening coordination, navigation, continuity and equity across cancer prevention and care pathways for people with mental health problems.

4.2. Austria: mapping findings and local scale-up plan

4.2.1. Existing pathway organisation

The Austrian mapping shows that there is limited availability of cancer prevention, screening, diagnosis, treatment, palliative care and survivorship services through a combination of national cancer frameworks, primary care, specialist oncology services, hospitals, palliative care providers and civil society organisations, not all of which are covered by insurance, thereby limiting access. The Austrian National Cancer Plan provides an overarching strategic framework for oncology, while the Austrian Cancer Aid offers information, prevention resources, psychosocial support and guidance for patients and families. Population-based prevention and screening services are available,

including early detection programmes for specified age groups and health promotion services offered through the Austrian health insurance system.

Cancer diagnosis and treatment are mainly organised through general practitioners, hospitals and specialist services, with oncology treatment delivered through secondary and tertiary care institutions, including surgery, chemotherapy and radiotherapy services. Palliative and supportive care resources include hospice services, mobile palliative care teams, pain management services, psychosocial support, peer support and spiritual care. Survivorship and rehabilitation services are also available, including inpatient and outpatient oncological rehabilitation, Austrian Cancer Aid support services, and programmes such as Fit2Work to support return to work after sickness absence.

However, the mapping indicates that mental health services are not systematically integrated into cancer prevention, screening or cancer care pathways. Entry into cancer services for people with mental ill health generally occurs through the same pathways as the general population, rather than through formalised referral mechanisms from mental health services. Psycho-oncology support exists, but it is mainly oriented towards supporting people who develop psychological distress as a consequence of cancer diagnosis and treatment, rather than proactively addressing the needs of people with mental ill health. It should further be noted that access to cancer care services is limited by several barriers, including incomplete insurance coverage, limited availability of services – particularly preventive services – and the restriction of services to specific age groups rather than making them accessible to the broader public.

4.2.2. Main fragmentation and implementation gaps

The main implementation gap in Austria is the absence of targeted cancer care approaches for people with mental health problems. The mapping found no regional or national programme specifically designed to promote cancer prevention, screening uptake or early detection among this population. Existing screening programmes often rely on self-initiative, invitation systems and appointment-making, which may not sufficiently address the needs of people experiencing reduced motivation, social anxiety, cognitive difficulties, low concentration, previous negative experiences with healthcare, or socioeconomic disadvantage.

Fragmentation is particularly visible at the interface between mental health services, primary care and cancer care. Communication and information exchange between mental health specialists, general practitioners and cancer specialists appear poorly integrated. These findings were strongly reinforced during the national stakeholder workshop, where participants highlighted the absence of formal coordination mechanisms, limited interdisciplinary communication and unclear responsibilities across services. Stakeholders also identified workforce pressures and insufficient protected coordination time as important implementation barriers. There are no clearly defined pathways through which mental health services systematically identify cancer prevention needs, support screening participation, or coordinate referrals into diagnostic and oncology services.

Diagnostic overshadowing was identified as an important risk across the pathway. Physical symptoms may be misinterpreted, minimised or not taken seriously when a person has a known mental health condition. This may contribute to delayed diagnosis, reduced self-advocacy and difficulties in initiating care. Similar concerns apply during treatment, where people with mental ill health may experience difficulties attending appointments, understanding treatment options, engaging in shared decision-making, maintaining adherence, or communicating needs in stressful hospital environments.

The mapping also identified gaps in treatment and supportive care. Although psycho-oncology services are available, they are not specifically designed for people with mental ill health. Potential barriers include limited time for professionals to build trust, lack of adapted communication, insufficient support for shared decision-making, potential drug interactions, and the risk that hospital settings are not equipped to respond to complex mental health needs. In palliative and survivorship care, stigma and underestimation of symptoms, including pain, may further affect access, quality of care and continuity.

4.2.3. Existing enabling factors and good practices

Austria has several important enabling factors that could support the local adaptation and scale-up of the CO-CAPTAIN standards. The existence of the Austrian National Cancer Plan provides a strategic policy framework that could be used to embed equity-oriented cancer prevention and integrated care priorities. The Austrian Cancer Aid also

represents an important civil society resource for information, prevention, psychosocial support and patient guidance.

The presence of structured cancer screening programmes, general practitioners, specialist oncology services, palliative care providers, rehabilitation services and psychosocial support resources provides a strong service foundation. Community nursing initiatives in some federal states, return-to-work programmes such as Fit2Work, and oncological rehabilitation structures may also provide useful entry points for strengthening continuity and person-centred support.

A further potential enabling factor is the routine somatic check-up that may occur when a person is hospitalised for a mental illness. Although not designed as a cancer care pathway, this could represent an opportunity for earlier identification of physical health needs, cancer risk factors or symptoms requiring further assessment.

4.2.4. Priorities for local adaptation and scale-up

In Austria, the main priority is to move from mainstream, non-adapted cancer pathways towards more proactive and coordinated approaches for people with mental health problems. This would require strengthening the links between mental health services, primary care, cancer screening programmes and oncology services.

Priority actions include developing formal referral and communication pathways between mental health services and cancer prevention or screening programmes, introducing proactive support for screening participation, and clarifying responsibility for follow-up when people with mental ill health miss screening appointments or diagnostic referrals. For example, general practitioners and community nurses could play a central role in identifying prevention needs and supporting access, provided they are linked to mental health and cancer care services through clearer coordination mechanisms. Workshop participants also highlighted the importance of strengthening nursing and coordination roles, particularly for continuity support, communication and follow-up across transitions in care.

Another priority is to adapt cancer care communication to the needs of people with mental ill health. This may include simplified information, reminder systems, flexible

appointment support, accompaniment options and collaboration with trusted mental health professionals or community-based workers.

For treatment, palliative care and survivorship, Austria would benefit from clearer pathways for identifying people with mental health problems, assessing support needs, addressing medication interactions, and involving mental health expertise in care planning where needed. Workforce training on stigma, diagnostic overshadowing, supported decision-making and communication with people with mental ill health should be considered a foundational minimum practice.

In the longer term, Austria could progress towards more advanced integrated care arrangements, including shared care planning between cancer care, mental health and primary care, structured handovers at key transitions, and stronger use of digital tools to support continuity, referral tracking and equity monitoring.

In terms of phased implementation, Austria could begin with minimum expected practices such as formal referral protocols, named coordination contacts, adapted screening communication and workforce training on stigma and diagnostic overshadowing. More advanced stretch practices could then focus on shared care planning, structured transition handovers and digital tools for referral tracking and equity monitoring.

4.3. Greece: mapping findings and local scale-up plan

4.3.1. Existing pathway organisation

The Greek mapping shows that cancer prevention and care are supported by several national, regional and community-level resources. The National Action Plan for Public Health 2021–2025 and the national prevention programme “PROLAMVANO” provide a policy framework for prevention, early detection and health promotion. Greece has also implemented national screening initiatives, including the “Fofi Gennimata” breast cancer screening programme and the national colorectal cancer screening programme launched in 2024. These programmes use population-based approaches, including centralised invitations through SMS for eligible citizens. In Greece, an important element for population-based screening and early detection is the use of centralised invitation mechanisms, including SMS-based invitations linked to citizens’ AMKA. Although these

mechanisms are a useful foundation for reaching eligible population groups, additional support may be required for people with mental-ill health who face difficulties understanding, organising or completing screening procedures.

Cancer diagnosis is mainly delivered through public hospitals, university hospitals and diagnostic centres, with emergency departments also acting as entry points for symptomatic patients. Cancer treatment is provided primarily through public oncology hospitals and departments, alongside some private providers reimbursed by EOPYY. Palliative care is limited but growing, with services such as GALILEE and other NGO or hospital-based initiatives. Survivorship and psychosocial support programmes exist but remain unevenly distributed.

Mental health services include Community Mental Health Centres, Mobile Mental Health Units, psychosocial rehabilitation units, day centres and psychiatric services. These services may encourage people to attend general health checks or support access to care on a case-by-case basis. However, the mapping indicates that there are no systematic, mental-health-specific referral pathways into cancer prevention, screening, diagnosis or treatment. People with mental ill health generally enter cancer pathways through the same population-based, primary care or hospital routes as the general population. However, the recent National Mental Health Action Plan 2021–2030 and psychiatric reform initiatives could offer a solid framework for strengthening community-based mental health care and may create pathways to better connect mental health services with physical health promotion, cancer prevention and protocols.

4.3.2. Main fragmentation and implementation gaps

The Greek mapping highlights several important gaps at the interface between mental health, cancer prevention and cancer care. Physical health promotion and cancer prevention are not consistently integrated into mental health care plans for people with severe mental illness. Mental health professionals may encourage prevention or screening, but this depends on individual initiative, local capacity and the availability of carers or community staff to support access. The important gap therefore is not only whether professionals support and urge patients for prevention or screening, but whether this support is embedded within standardised procedures and protocols. Currently in Greece, there are no routine protocols, monitoring mechanisms or feedback

loops to ensure that mental health services systematically identify cancer prevention needs, support screening attendance, and follow up on incomplete or missed screening procedures.

Screening programmes are expanding, but participation remains uneven and screening coverage in Greece remains below the EU average. Perhaps, people with mental health problems may be at increased risk of non-attendance because screening participation requires organisational capacity, trust in services, health literacy, appointment management and, in some cases, support with transport or accompaniment. This information gap is extremely relevant as mental health services do not have feedback loops and procedures on whether individuals invited to screening have completed the process, resulting to missed appointments or incomplete screening processes. Mental health services do not routinely receive feedback on whether invited individuals completed screening, creating a gap in follow-up and continuity. Stakeholders participating in the national workshop confirmed that continuity and follow-up remain particularly difficult across fragmented services, especially in rural and underserved areas where access to specialised oncology and psychosocial support may be limited.

Diagnostic pathways also present risks. Diagnostic overshadowing may occur when physical symptoms are misattributed to psychiatric conditions, delaying investigation. The mapping also identified limited use of reasonable accommodations, such as longer appointments, quieter environments or liaison support, for people with severe mental illness undergoing diagnostic procedures. Fragmented communication between cancer care, primary care and mental health services is further complicated by the use of different information systems.

During treatment, mental health and psychosocial needs are not consistently embedded into oncology care. Psycho-oncology and clinical psychology services are available in some large hospitals and NGOs, but access is uneven and not always designed for people with mental ill health. Palliative care and survivorship services remain geographically sparse and are often concentrated in major urban areas, limiting access for people in rural or underserved communities. Additionally, there may be practical and financial barriers that further affect continuity during treatment and follow-up. These could include transport difficulties, out-of-pocket costs for psychological support or

psychotherapy, limited availability of psycho-oncology services outside major urban centres, and uneven access to survivorship and supportive care resources.

4.3.3. Existing enabling factors and good practices

Despite these gaps, Greece has several important enabling factors for implementing the CO-CAPTAIN standards. National prevention programmes and the use of SMS-based invitations provide a foundation for population-based screening. The expansion of organised colorectal and breast cancer screening creates an opportunity to introduce adapted follow-up and navigation mechanisms for people with mental ill health.

Community Mental Health Centres and Mobile Mental Health Units are particularly relevant for local adaptation. Mobile Mental Health Units in rural areas already cooperate with primary care and local authorities, creating opportunities to integrate cancer prevention, health promotion and screening support into existing community mental health work. Workshop discussions further highlighted the potential of Mobile Mental Health Units to act as local coordination and navigation mechanisms, particularly for socially vulnerable populations and people living in remote areas. In some cases, community mental health teams already help coordinate appointments or accompany users to somatic healthcare visits, although this remains local and non-standardised.

In some settings, mostly rural, community mental health teams may already provide informal support with appointment coordination and communication with health care services. However, these practices remain local, case-by-case and non-standardised, and therefore depend heavily on available staff, local relationships and individual professional initiative.

Greece also has several civil society and NGO resources that could support integrated care. Organisations such as Alma Zois, ELLOK and psychosocial cancer support services provide awareness, counselling and support for cancer patients and vulnerable groups. The Day Centre for the Psychological Support of Patients with Cancer and hospital-based psycho-oncology services in large Athens hospitals also provide examples of collaboration between oncology and mental health expertise.

4.3.4. Priorities for local adaptation and scale-up

In Greece, local adaptation should focus on connecting national cancer prevention and screening programmes with mental health and community-based services. A priority should be to establish formal referral and follow-up mechanisms between Community Mental Health Centres, Mobile Mental Health Units, primary care and cancer screening programmes. As a minimum practice, this may include named contact points between Community Mental Health Centres, Mobile Mental Health Units, primary care providers and screening services, as well as agreed referral steps and clear follow-up procedures for missed appointments or incomplete screening pathways. This would help ensure that people with mental ill health are not only invited to screening, but are actively supported to understand, attend and complete screening procedures.

A second priority is the development of navigation or case management functions within community mental health and primary care settings. These functions could support appointment scheduling, reminders, transport coordination, accompaniment, follow-up after missed appointments, and communication with screening or oncology services. However, in the Greek context navigation functions may be more feasible if they are directly embedded within existing community mental health or primary care structures, rather than introduced as a separate stand-alone service. This approach would allow navigation to build upon already developed and trusted relationships with service users and existing pathways with local health and social care providers.

Greece should also prioritise adapted communication and reasonable accommodations for people with mental ill health across diagnosis and treatment. This may include longer consultations, simplified information, involvement of trusted supporters with consent, quiet environments where possible, and liaison mechanisms between mental health professionals and oncology teams.

At system level, Greece would benefit from strengthening data feedback between screening programmes and mental health services, while ensuring appropriate consent and data protection. In the medium term, integrated care could be advanced through local agreements between oncology hospitals, Community Mental Health Centres, Mobile Mental Health Units, primary care services and NGOs. These agreements could

define referral processes, named contacts, escalation pathways and responsibilities for follow-up.

Given existing rural inequalities, Greece's scale-up pathway should prioritise community-based navigation and follow-up functions, particularly through Mobile Mental Health Units, Community Mental Health Centres, primary care and NGOs. Minimum expected practice could focus on supported screening participation, referral follow-up and adapted communication, while stretch practice could develop formal local agreements, multidisciplinary coordination and digital feedback mechanisms between screening programmes and mental health services. Rural, island and other underserved areas could be prioritised for early testing of mobile and community-based navigation approaches, given the existing role of Mobile Mental Health Units and the access inequalities identified across the pathway.

4.4. Poland: mapping findings and local scale-up plan

4.4.1. Existing pathway organisation

The Polish mapping shows that cancer prevention, diagnosis, treatment, palliative care and survivorship support are delivered through a broad set of public services, national strategies and institutional actors. Cancer prevention and screening are guided by the National Oncology Strategy 2020–2030, supported by national public health programmes and implemented through primary healthcare, organised population-based screening programmes, public awareness campaigns, and oncology-related information initiatives. Cancer diagnosis is organised within a system financed by the National Health Fund involving primary healthcare, specialist outpatient clinics, hospitals and oncology centres. The DiLO card fast-track oncology pathway provides an important mechanism for accelerating cancer diagnosis and treatment for people suspected of having cancer. Treatment is delivered mainly through public oncology centres and specialised hospitals, including surgery, radiotherapy, chemotherapy, immunotherapy and targeted therapies. Multidisciplinary tumour boards and comprehensive cancer centres constitute key organisational elements of oncology care. Palliative care is funded by the National Health Fund and is available through palliative care clinics, home hospice care, inpatient hospices and palliative care wards. Survivorship and transitional

support are more fragmented and involve social welfare centres, county family support centres, rehabilitation benefits, sickness benefits, disability-related support, social assistance, NGOs and patient organisations.

Mental health services include outpatient and inpatient psychiatric care, community-based services, psychological counselling and psychotherapy, as well as support provided through Mental Health Centres (Centra Zdrowia Psychicznego), primary care and specialised institutions with limited formal integration into oncology care pathways. The mapping indicates that mental health services are not formal entry points into cancer prevention, diagnostic fast-track systems or treatment pathways. People with mental ill health generally enter cancer pathways through primary care or specialist referral mechanisms, similar to the general population.

4.4.2. Main fragmentation and implementation gaps

The main gap in Poland relates to the limited integration between mental health services and cancer care pathways. Although psycho-oncological support is present in selected centres, it remains fragmented and inconsistently implemented and is not systematically embedded across key stages of the cancer pathway. Psychiatry is not formally integrated into fast-track oncology mechanisms such as the DiLO pathway. Stakeholders participating in the national workshop emphasised that this contributes to fragmentation of care, delays in support provision and unequal patient experiences across regions.

As a result, cancer diagnosis and referral are strongly mediated through primary care, which may create barriers for people with mental ill health who experience difficulties navigating services, attending appointments, communicating symptoms or advocating for themselves within the system.

Screening programmes for breast, cervical and colorectal cancer do not systematically include formal mental-health-specific referral, outreach or follow-up mechanisms. Lower screening participation among people with mental ill health was identified as a concern, linked to stigma, low health literacy, limited motivation, cognitive symptoms, practical barriers and insufficient proactive support.

Fragmented coordination between cancer care and community mental health services was also identified during treatment. While psycho-oncological services are available and funded within the system, they remain unevenly distributed and are not systematically integrated into cancer care pathways at a national level.

Workforce shortages and lack of systematic mental health screening during cancer treatment further limit integrated care.

In palliative and survivorship care, pathways are primarily medically driven and standardised, with limited consideration of the specific needs of people with mental health conditions. Structured, mental-health-specific procedures or pathways are generally not systematically integrated into these phases of care. Survivorship remains particularly underdeveloped, with Poland lacking a unified and coherent model of care after completion of oncological treatment. Information exchange between primary care, oncology services and other specialist care providers is often fragmented, and access to psychological support remains limited, especially in regions outside major urban centres.

At the system level, one of the main challenges is not only the development of integrated care pathways, but also the lack of clearly defined management and accountability frameworks for cross-sectoral coordination between cancer care, mental health services and social services.

4.4.3. Existing enabling factors and good practices

Poland has several strong enabling factors that could support adaptation and scale-up of the CO-CAPTAIN standards. The National Oncology Strategy 2020–2030, the National Oncology Network and the DiLO fast-track card provide important oncology infrastructure and policy entry points. The presence of comprehensive cancer centres, multidisciplinary tumour boards and hospital-level clinical pathways creates a strong clinical foundation for strengthening integrated care coordination. In addition, existing coordination roles within oncology and the central role of primary care in patient pathways offer further opportunities to expand cross-sector integration.

Community Mental Health Centres and their Coordination Points provide a potentially important entry point for strengthening links between mental health and cancer care

services. Although they are not currently formal cancer care referral points, they already perform needs assessment, coordination and local service navigation. These functions could be further adapted to support access to cancer prevention, screening and early-stage care, particularly for individuals with mental health conditions. Poland also has useful patient information and support resources. National oncology information platforms, Polish-language patient guides, NGO-led support programmes, psycho-oncology services in selected comprehensive cancer centres, and organisations such as the Polish Coalition of Oncology Patients provide important assets for patient education, psychosocial support and advocacy.

In palliative care, online directories and resources developed in collaboration by professional societies provide a useful example of improving access to service information for family physicians, patients and caregivers. Social welfare centres and district family support centres also provide structures for addressing social and practical needs, although these are not yet systematically linked to cancer care and mental health pathways.

4.4.4. Priorities for local adaptation and scale-up

In Poland, a key priority is to better connect existing cancer care and mental health infrastructures through formal referral, communication and coordination mechanisms. The DiLO fast-track pathway and Community Mental Health Centres can serve as potential entry points for strengthening integration. Although Community Mental Health Centres are currently implemented as part of an ongoing pilot model, they offer important lessons in coordination, navigation and community-based care that could inform future system-level solutions. A first implementation priority would be to strengthen coordination and referral pathways between community mental health services, primary care and cancer screening programmes, building on existing structures. Such mechanisms could support mental health professionals in identifying unmet prevention and screening needs, improve attendance, and trigger follow-up for individuals who do not complete screening or diagnostic referrals.

A second priority is to strengthen navigation and case management functions. Stakeholders strongly supported navigation as an effective mechanism for improving continuity, reducing organisational complexity and supporting patients with heightened

psychosocial needs throughout the cancer pathway. Existing coordination and support functions - particularly the established role of oncology care coordinators, alongside services in community mental health, primary care, social care, psycho-oncology and NGOs - provide a strong foundation for developing more structured, cross-sector care pathways for people with mental ill health. This would reduce dependence on self-navigation and improve continuity across screening, diagnosis, treatment and survivorship. Strengthening patient empowerment and supported decision-making is a key component of integrated care, particularly for individuals facing additional psychosocial barriers.

Poland should also prioritise strengthening workforce capacity in areas such as diagnostic overshadowing, stigma, adapted communication, shared decision-making and the interaction between cancer treatment and mental health needs. This is particularly relevant for primary care providers, oncology teams, psycho-oncology services and mental health professionals involved in the cancer care pathway.

At system level, Poland would benefit from strengthened information exchange between primary care, oncology services, mental health and social support services. Survivorship planning should be developed further, especially for people with complex mental health and social needs. In the longer term, a more integrated model of psycho-oncology and mental health support within cancer care pathways should be supported through dedicated funding mechanisms, quality standards and national implementation guidance.

Poland's local scale-up pathway should therefore build on existing oncology coordination mechanisms and emerging community mental health structures. Minimum expected practice could focus on linking Community Mental Health Centres, primary care and screening programmes through referral protocols, named contacts and follow-up procedures. Stretch practice could then expand towards formal integration with the DiLO pathway, structured psycho-oncology and mental health input across treatment and survivorship, and stronger information exchange between oncology, primary care, mental health and social support services.

4.5. Spain: mapping findings and local scale-up plan

4.5.1. Existing pathway organisation

Cancer prevention and care within the Community of Madrid are primarily organised through the public health system, combining population-based screening programmes, primary care services, specialised oncology care, and community health promotion initiatives. Existing prevention programmes include DEPRECAM, PREVECOLON and CERVICAM, while diagnosis and treatment pathways are largely hospital-based and coordinated through specialised oncology services and multidisciplinary tumour boards.

Although formal integration with mental health services within the cancer prevention and care pathway remains limited, coordination through mental health nursing services is viewed positively, as these services facilitate and improve care for patients with mental health conditions. During the research/workshops, it was confirmed that initial access to cancer prevention, screening, diagnosis and treatment should continue to occur through standard primary care and hospital referral mechanisms, but with greater coordination with dedicated mental health coordination structures.

Psycho-oncology support is available only in some contexts. Municipal Community Health Centres, Mental Health Centres, Psychosocial Rehabilitation Centres and Labour Rehabilitation Centres provide partial support during screening phases, as well as throughout diagnosis, treatment and palliative care. However, greater coordination and the existence of standardised protocols are needed among primary care, oncology, mental health and social care services.

4.5.2. Main fragmentation and implementation gaps

The mapping exercise identified significant fragmentation between cancer care, mental health, public health, primary care and community services. Across all phases of the pathway, there was a consistent absence of structured referral protocols linking mental health services with cancer prevention and cancer care services.

Coordination mechanisms were largely informal and dependent on individual professionals rather than supported through formal navigation, case management or continuity structures. These findings were confirmed during the national stakeholder

workshop, where participants highlighted the lack of formal continuity mechanisms and the dependence on individual professionals or local initiatives to sustain coordination across services. Mental health teams were not routinely involved in screening coordination, cancer care referrals, multidisciplinary tumour boards, or continuity planning during treatment transitions.

Additional barriers included:

- lack of adapted cancer screening approaches for people with mental ill health;
- weak communication between services;
- insufficient integration of psychosocial and social support;
- workforce training gaps;
- persistent stigma;
- low screening adherence among vulnerable populations;
- and limited digital interoperability across services.

The mapping also highlighted that existing programmes rely heavily on standardised invitation systems, which may not adequately address the needs of individuals experiencing social vulnerability, cognitive difficulties, or severe mental illness.

4.5.3. Existing enabling factors and good practices

Despite these challenges, the Spanish mapping identified several enabling factors that could support future implementation of the CO-CAPTAIN standards. These include:

- existing population-based cancer screening programmes;
- strong primary care infrastructure;
- multidisciplinary tumour boards;
- psycho-oncology services;
- community health centres;
- municipal health promotion initiatives;

- and existing chronic care and mental health strategies within the Community of Madrid.

Some local community programmes and Municipal Community Health Centres, Regional Mental Health Centres, Psychosocial Rehabilitation Centres and Labour Rehabilitation Centres also demonstrated partial navigation and accompaniment functions, although these initiatives remain fragmented and insufficiently formalised.

4.5.4. Priorities for local adaptation and scale-up

Based on the mapping findings, several priorities were identified for future adaptation and scale-up of integrated cancer and mental health care in Spain.

Key priorities include:

- development of structured referral and coordination pathways between mental health, primary care and oncology services;
- integration of navigation and case management functions within cancer prevention pathways;
- strengthening multidisciplinary collaboration;
- improving continuity mechanisms across transitions;
- adapting cancer screening approaches for vulnerable populations;
- strengthening psychosocial and social support integration;
- improving workforce competencies related to mental health and cancer care coordination;
- and, improving the effective exchange of patients' social and clinical data through a "single integrated health record".

Workshop participants also highlighted the need to strengthen coordination between hospital oncology services, primary care, mental health and community-based resources in order to reduce fragmentation and improve continuity of care. Additional priorities include improving digital interoperability and information platforms adapted to people

with mental health conditions, strengthening shared care planning mechanisms, and embedding equity-oriented approaches within cancer prevention strategies.

Minimum expected practice could focus on linking existing screening programmes, primary care and mental health services through named contacts, referral protocols, proactive follow-up after missed screening or diagnostic appointments, and basic workforce training on stigma, diagnostic overshadowing and supported decision-making. Stretch practice could then develop shared care planning, multidisciplinary coordination mechanisms, digital interoperability and stronger integration between hospital oncology services, municipal health promotion initiatives and community-based support resources.

4.6. Comparative synthesis: common barriers, enablers and implementation needs

The comparative analysis of country mapping findings points to a shared implementation challenge across the participating countries: cancer systems and mental health systems largely operate in parallel rather than as integrated components of a coordinated pathway. While each country has specific organisational, policy and resource conditions, the mapping identified a common pattern of fragmentation across cancer care, mental health, primary care, public health and social support services.

These findings were consistently validated during the national stakeholder workshops, where participants across countries described similar experiences of fragmentation, weak continuity mechanisms, insufficient coordination time, and limited formal integration between mental health and cancer care services.

The most important shared barrier is the absence of formalised mental health–oncology coordination pathways. Across countries, mental health services are rarely established as systematic entry points into cancer prevention or screening programmes, and cancer care services do not consistently include structured mechanisms for identifying and responding to pre-existing mental health needs. This gap increases the risk of missed prevention opportunities, delayed diagnosis, fragmented treatment experiences and poor follow-up.

A second common barrier is the lack of defined patient navigation or case management functions. Although some services provide partial coordination, accompaniment or psychosocial support, these functions are not usually standardised, resourced or embedded across the cancer prevention and care continuum. This creates inconsistency in how people with mental ill health are supported to understand information, attend appointments, complete referrals, manage treatment transitions, and access social or community resources.

A third barrier concerns workforce capacity and role clarity. Professionals across cancer care, primary care and mental health services may lack training, time or confidence to address the combined needs of cancer and mental health. The mapping suggests that integrated care requires clearer definitions of responsibility, including who identifies mental health-related needs, who coordinates referrals, who follows up missed appointments, who manages transitions, and who ensures that social barriers are addressed.

Digital and information-sharing limitations represent another cross-cutting challenge. Fragmented IT systems limit the ability to share relevant information across sectors, monitor referrals, support continuity, and track whether people with mental ill health are accessing prevention and cancer care equitably. This makes digital governance and stepwise interoperability a key implementation need, although countries may need to progress at different speeds depending on their digital maturity.

At the same time, the mapping identified several shared enablers. These include existing national or regional cancer strategies, population-based screening programmes, primary care systems, cancer care centres, psycho-oncology resources, social care providers, NGOs and community-based services. These resources provide a foundation for implementing the CO-CAPTAIN standards, provided they are better connected through formal pathways, shared responsibilities and governance mechanisms.

The comparative findings suggest that scale-up should follow a phased approach. In the short term, countries should prioritise minimum expected practices, including systematic identification of mental health needs, referral protocols between mental health and cancer services, named coordination points, adapted communication, proactive follow-up, and basic workforce training. In the medium term, countries can

progress towards more mature integrated care arrangements, including multidisciplinary forums, formal navigation roles, shared care plans, stronger digital systems, quality monitoring, and sustainable financing mechanisms.

The workshops also revealed differences in implementation maturity across countries. Austria and Poland demonstrated relatively structured cancer care systems with stronger institutional cancer infrastructures, although psychosocial and mental health integration remained limited. Greece demonstrated important community-based and NGO-supported coordination potential, particularly through Mobile Mental Health Units, although service availability remained geographically uneven. Spain showed strong primary care and public health infrastructures but continued reliance on informal coordination mechanisms between cancer care, mental health and community services. These differences suggest that implementation and scale-up strategies will need to be adapted to local organisational maturity, workforce capacity and governance conditions.

Overall, the mapping confirms the relevance of the CO-CAPTAIN standards as a practical framework for moving from fragmented, service-specific arrangements towards coordinated cancer prevention and care pathways for people with mental health problems. Across all four countries, the immediate priority is not to create entirely new parallel services, but to connect existing cancer, mental health, primary care, social care and community resources through formal coordination mechanisms, embedded navigation functions, adapted communication, workforce support, and stepwise digital and governance arrangements.

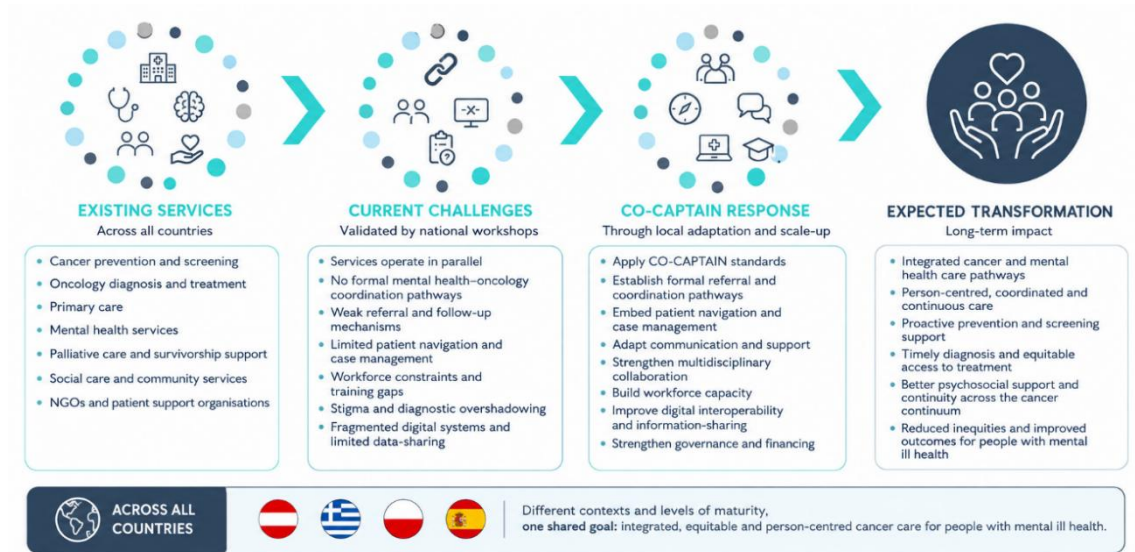


Figure 2. Current services and challenges, CO-CAPTAIN response and expected long-term impacts

Table 2. Country-specific scale-up priorities aligned with the CO-CAPTAIN standards

Country	Main readiness assets	Main implementation gaps	Minimum expected practice priorities	Stretch practice direction
Austria	National Cancer Plan, Austrian Cancer Aid, screening, oncology and rehabilitation structures	Weak integration between mental health, primary care and cancer pathways	Referral protocols, named contacts, adapted screening support, workforce training	Shared care plans, structured handovers, digital referral tracking
Greece	National prevention programmes, SMS screening invitations, Community Mental Health Centres, Mobile Mental Health Units, NGOs	Rural inequalities, weak feedback loops, limited systematic follow-up	Supported screening participation, navigation through community mental health, adapted communication	Local agreements, multidisciplinary coordination, digital feedback between services
Poland	National Oncology Strategy, DiLO pathway, oncology centres, Community Mental Health Centres	Weak mental health-oncology linkage, fragmented survivorship, limited psycho-oncology integration	Link Community Mental Health Centres, primary care and screening; navigation and referral follow-up	Integration with DiLO, structured psycho-oncology input, stronger information exchange
Spain	Public health systems, population-based screening, strong primary care, municipal/community health centres	Informal coordination, limited navigation, weak integration with mental health	Referral protocols, named coordination roles, proactive follow-up, workforce training	Shared care planning, digital interoperability, community-hospital coordination

SECTION 5. Transformation pathways for scaling integrated cancer prevention and care for people with mental health problems

5.1. From fragmented systems to integrated pathways

The mapping exercise, stakeholder workshops and emerging local scale-up plans show that the participating countries already have important components of cancer prevention and care infrastructure in place. Austria, Greece, Poland and Spain all have established cancer screening programmes, oncology services, primary care systems, mental health services, psychosocial support resources and community-based actors. However, these components often operate in parallel rather than as parts of a coordinated pathway. The main transformation challenge is therefore not the creation of entirely new services, but the integration of existing cancer, mental health, primary care, social care and community resources into more coherent and continuous pathways for people with mental health problems.

This fragmentation is particularly visible across prevention, screening, diagnosis, treatment, survivorship and palliative care. Mental health services are rarely connected to cancer prevention or screening programmes through formal referral, follow-up or continuity mechanisms. Similarly, cancer care pathways do not consistently include structured processes for identifying pre-existing mental health needs, adapting communication, involving trusted supporters, coordinating with mental health professionals, or addressing social and practical barriers to care. As a result, people with mental health problems may be required to self-navigate complex systems that are not designed around their cognitive, emotional, social or practical needs.

The CO-CAPTAIN standards respond to this gap by proposing a shift from fragmented, service-centred arrangements towards integrated cancer prevention and care pathways. These pathways should connect oncology, mental health, primary care, public health, social care and community services through clearer referral arrangements, named responsibilities, adapted communication, proactive follow-up and structured continuity mechanisms. The objective is not to create a separate cancer pathway for people with

mental health problems, but to make existing pathways more accessible, coordinated, responsive and equitable.

Patient navigation is a central mechanism within this transformation. Across the mapping and workshop findings, navigation was consistently identified as a practical way to support prevention and screening participation, facilitate communication between services, reduce organisational complexity, improve follow-up and address psychosocial or practical barriers to care. However, navigation should not be introduced as an isolated or temporary project role. It should function as an embedded coordination mechanism, connected to multidisciplinary teams, mental health services, primary care, oncology services and community support structures.

The transformation towards integrated pathways also requires stronger governance and accountability. Formal referral protocols, shared responsibilities, named contact points, structured handovers, workforce support and quality monitoring are needed to move beyond informal collaboration between individual professionals. Without these enabling conditions, integration risks remaining dependent on local champions rather than becoming part of routine service delivery.

Given the differences in organisational maturity, workforce capacity, governance arrangements and digital readiness across countries, transformation should follow a phased and context-sensitive approach. The CO-CAPTAIN standards provide a common framework for this progression, allowing countries and organisations to begin with minimum foundational practices and progressively move towards more mature integrated care arrangements. In this way, the standards support a realistic pathway from fragmented systems towards coordinated, person-centred and equitable cancer prevention and care for people with mental health problems.

5.2. Phased transformation model for scale-up

The findings generated through the CO-CAPTAIN project suggest that the transformation towards integrated cancer prevention and care for people with mental health problems should follow a phased and progressive implementation approach. The three phases correspond to the distinction between minimum expected practice and stretch practice embedded in the CO-CAPTAIN standards. They recognise that countries

and organisations differ in implementation readiness, workforce capacity, governance structures and digital maturity, and therefore cannot be expected to implement a fully mature integrated care model immediately.

The phased transformation model proposes a stepwise progression from foundational coordination mechanisms towards more organised and system-wide integrated care arrangements. Importantly, the model emphasises the use of existing infrastructures and services rather than the creation of parallel systems. Across countries, relevant structures are already in place, including oncology services, primary care systems, mental health services, psycho-oncology resources, NGOs, social care providers and community support initiatives. The main challenge is to strengthen the connections, coordination mechanisms and continuity structures between these components.



Figure 3. Phased implementation model for scaling the CO-CAPTAIN standards

Phase 1 – Minimum foundational practices

The first phase focuses on low-complexity and immediately feasible actions that can reduce fragmentation within existing systems. This phase aims to establish basic coordination and communication mechanisms to improve access to cancer prevention, screening and care for people with mental health problems without requiring major structural reform.

Priority actions include referral and communication protocols between oncology, mental health, primary care and community services; named contact points across services; and simple continuity procedures for screening follow-up, referral completion and treatment

transitions. This phase should also include adapted communication approaches, such as simplified information materials, reminder systems, supported appointment management and flexible follow-up procedures.

Basic workforce training is also a minimum foundational practice. Training should address mental health awareness, stigma, diagnostic overshadowing, adapted communication and supported decision-making. In parallel, services should progressively introduce procedures for the early identification of mental health needs across the cancer prevention and care continuum, particularly during prevention, screening, diagnosis and treatment transitions.

Phase 1 is especially relevant for settings with lower organisational maturity or limited coordination infrastructure. It enables implementation to begin through realistic and achievable actions embedded within existing services and professional roles.

Phase 2 – Organised coordination and navigation

The second phase focuses on strengthening structured coordination and embedding more formalised continuity mechanisms across the cancer prevention and care continuum. This phase reflects a moderate level of organisational maturity and requires stronger collaboration between oncology, mental health, primary care, social care and community services.

A central component of this phase is the implementation of formal patient navigation and case management functions. Navigation should support prevention and screening participation, facilitate communication between services, reduce organisational complexity, strengthen patient engagement and improve follow-up across transitions. However, navigation should operate as an integrated coordination function embedded within multidisciplinary teams, rather than as an isolated or temporary project role.

Additional priorities include structured handover procedures, shared follow-up responsibilities, multidisciplinary coordination meetings and stronger integration of psychosocial and social support within oncology pathways. Formal supervision and support structures are also needed for patient navigators and other coordination roles to ensure sustainability, role clarity and professional integration.

Community partnerships become increasingly important during this phase. NGOs, patient organisations, community mental health teams, social services and local authorities can help address psychosocial, practical and social barriers affecting prevention, screening participation and continuity of care, particularly for vulnerable and underserved populations.

Phase 3 – Mature integrated care systems

The third phase represents a more advanced level of integrated cancer prevention and care, characterised by system-wide coordination, integrated governance mechanisms and sustainable implementation structures. This phase requires higher organisational maturity, stronger digital infrastructure, stable financing mechanisms and formal integration across sectors.

At this stage, interoperable digital systems and shared care planning mechanisms become important for supporting continuity, referral tracking, communication and quality monitoring across oncology, mental health, primary care and social care services. These systems should enable safe and consent-aware information sharing, while also supporting reminders, follow-up, referral monitoring and equity-oriented quality improvement.

Mature integrated care systems should also incorporate structured quality monitoring and equity monitoring mechanisms. These may include indicators related to prevention, screening participation, referral completion, continuity, psychosocial support, treatment adherence and access inequalities affecting people with mental health problems. Sustainable financing and governance arrangements are also required to support long-term implementation, workforce stability and embedded navigation and coordination functions.

In this phase, psychosocial, mental health and social support should become routine components of cancer prevention and care pathways rather than optional or peripheral services. Multidisciplinary collaboration, navigation, continuity and person-centred care should be embedded as standard features of care delivery.

The phased transformation model provides a practical and adaptable framework for scaling the CO-CAPTAIN standards across diverse health system contexts. Countries

and regions may progress at different speeds depending on local resources, organisational maturity and governance conditions, but the overall direction remains shared: moving from fragmented systems towards coordinated, equitable and person-centred cancer prevention and care for people with mental health problems.

Table 3. Phased implementation model for scaling the CO-CAPTAIN standards

Phase	Transformation aim	Main implementation mechanisms	Related CO-CAPTAIN standards	CO-Implementation maturity
Phase 1. Minimum foundational practices	Establish basic coordination and reduce immediate fragmentation within existing services	Referral protocols; named contact points; adapted communication; early identification of mental health needs; screening follow-up; basic workforce training; simple continuity procedures	Standards 1, 4, 5 and 6	Low complexity; feasible within existing roles and services
Phase 2. Organised coordination and navigation	Embed structured coordination and continuity mechanisms across the cancer prevention and care continuum	Patient navigation and case management; structured handovers; multidisciplinary coordination; shared follow-up responsibilities; psychosocial and social support pathways; community partnerships	Standards 2, 3, 6, 8 and 9	Moderate maturity; requires formal coordination and role definition
Phase 3. Mature integrated care systems	Develop system-wide integrated care supported by governance, digital infrastructure and sustainable financing	Shared care plans; interoperable digital systems; referral tracking; quality and equity monitoring; integrated governance; sustainable funding; embedded psychosocial and mental health support	Standards 9 and 10, supported by all previous standards	High maturity; requires system-level governance and digital readiness

5.3. Country-specific transformation priorities

Although the CO-CAPTAIN standards provide a common framework for integrated cancer prevention and care, the local scale-up plans show that each country starts from a different level of organisational maturity and system readiness. Scale-up should therefore follow a shared direction while adapting priorities to national and regional contexts.

Table 4. Country-specific transformation priorities for scaling the CO-CAPTAIN standards

Country	Starting point / readiness profile	Main transformation priority	Phase emphasis
Austria	Strong oncology and primary care resources, but weak integration between oncology, mental health, social care and community support.	Strengthen coordination, communication and cross-sector collaboration, including clearer contact points, shared care planning and navigation functions.	Phase 1 → Phase 2
Greece	Important community mental health and NGO-based resources, but fragmented links with oncology and uneven service availability.	Formalise patient navigation, training and supervision, while strengthening continuity between oncology, mental health and community-based services.	Phase 1 → Phase 2
Poland	Strong oncology infrastructure, including national cancer strategies and fast-track oncology mechanisms, but limited	Create formal mental health–oncology referral pathways and embed navigation within existing oncology and coordination structures.	Phase 2

	formal connection with mental health services.		
Spain	Strong primary care, screening and health and social care infrastructures, but coordination between oncology, mental health and social services remains informal.	Formalise continuity mechanisms, referral protocols and patient navigation within existing regional health and social care coordination structures.	Phase 1 → Phase 2

Across the four countries, the transformation priority is not to create entirely new systems, but to connect and adapt existing structures. Austria and Spain require stronger operational coordination across already established services; Poland needs to link its structured oncology system with mental health and social support; and Greece has an opportunity to build on community mental health and NGO resources to strengthen navigation and continuity.

5.4. Cross-cutting implementation enablers

The local scale-up plans identified several cross-cutting implementation enablers that are necessary for translating the CO-CAPTAIN standards into sustainable practice across countries. While each country differs in organisational maturity, service configuration and policy context, the plans consistently show that scale-up depends on more than the availability of cancer prevention and care services. It requires the creation of enabling conditions that support coordination, continuity, workforce capacity, governance and equity-oriented implementation.

Workforce capacity and role clarity are central to successful scale-up. Across countries, stakeholders highlighted that professionals need sufficient time, competencies and organisational support to work across oncology, mental health, primary care, social care and community services. Integrated care cannot rely only on individual motivation or informal collaboration. Clear role definitions are needed to determine who identifies

mental health needs, who supports prevention and screening participation, who coordinates referrals, who follows up missed appointments, and who ensures continuity across transitions.

Training and capacity building were also identified as foundational enablers. Training should address mental health awareness, cancer prevention, stigma, diagnostic overshadowing, adapted communication, shared decision-making, health literacy, psychosocial needs and cross-sector collaboration. The local plans show that training should not be limited to oncology or mental health professionals alone, but should involve primary care teams, nurses, social workers, patient navigators, NGOs and community-based professionals.

Patient navigation supervision and professional support emerged as a specific requirement for scale-up. Patient navigation was consistently recognised as a high-value mechanism, but local plans also showed that navigators require formal recognition, supervision, clear competencies, escalation pathways and integration into multidisciplinary teams. Without supervision and organisational embedding, navigation risks remaining informal, isolated or dependent on individual professionals rather than becoming a sustainable system function.

Governance and accountability mechanisms are needed to move from informal coordination towards structured integrated pathways. Countries highlighted the importance of formal referral protocols, named contact points, shared responsibilities, cross-sector agreements and institutional endorsement from health and care authorities. Governance arrangements should clarify how oncology, mental health, primary care, public health, social care, NGOs and community services work together, and how responsibility for prevention, follow-up and continuity is distributed across the system.

Sustainable funding is another critical enabler. The local plans repeatedly identified the risk that navigation, coordination, training, digital tools and psychosocial support remain pilot-based if they are not supported by stable financing. Funding is needed not only for new roles, but also for protected coordination time, workforce training, supervision, digital interoperability, evaluation and community partnerships. Scale-up therefore

requires that the proposed actions be embedded within the structural programmes of the Ministries of Health and Social Services, enabling financial resources to be allocated accordingly and ensuring that integrated care functions become part of routine service delivery rather than short-term project structures.

Digital interoperability and information-sharing are essential for more mature implementation. Countries reported fragmented information systems and limited data exchange between oncology, mental health, primary care and social care services. Digital tools can support referral tracking, shared care planning, reminders, follow-up and quality monitoring. However, digital implementation must be proportionate, accessible and ethically governed, with attention to consent, confidentiality, data protection and digital exclusion.

NGOs, community organisations and local support networks represent important assets for implementation. Across countries, NGOs and community-based services were identified as key partners for outreach, psychosocial support, health education, accompaniment, caregiver support and continuity beyond hospital settings. Their involvement is particularly important for people who experience loneliness, stigma, low trust in services, social vulnerability or practical barriers to accessing prevention and care.

Finally, **participatory implementation** is necessary to ensure that integrated pathways are acceptable, feasible and responsive to the needs of people with mental health problems. Local plans highlighted the importance of involving service users, caregivers, peer workers, patient organisations, professionals and community actors in the design, adaptation and evaluation of services. Participatory approaches can help identify barriers that are not visible in formal pathways, improve communication materials, strengthen trust and ensure that scale-up does not reproduce existing inequalities.

Together, these enablers define the conditions required for the CO-CAPTAIN standards to move from validated principles to sustainable implementation. They show that scale-up is not only a technical process, but also an organisational and relational transformation requiring workforce investment, governance, funding, digital readiness, community involvement and meaningful participation.

Table 5. Cross-cutting implementation enablers for scaling the CO-CAPTAIN standards

Enabler	Practical implication
Workforce capacity and role clarity	Define who identifies needs, coordinates referrals and follows up transitions
Training and capacity building	Build competencies in stigma, diagnostic overshadowing, communication and shared decision-making
Navigation supervision	Ensure navigators have defined roles, supervision and escalation pathways
Governance and accountability	Formalise referral protocols, named contacts and shared responsibilities
Sustainable funding	Move navigation and coordination beyond pilot-based arrangements
Digital interoperability	Support referral tracking, shared care planning and quality monitoring
Community partnerships	Strengthen outreach, accompaniment and psychosocial support
Participatory implementation	Involve service users, caregivers and community actors in adaptation and evaluation

SECTION 6. Strategic recommendations for scale-up

Scaling integrated cancer prevention and care for people with mental health problems requires coordinated action across service delivery, governance, workforce development, financing, monitoring and cross-sector collaboration. The CO-CAPTAIN findings show that many of the required services and resources already exist across participating countries, but they remain insufficiently connected through formal pathways, shared responsibilities and sustainable coordination mechanisms. The following recommendations identify the main areas of action required to translate the CO-CAPTAIN standards into routine practice and support long-term scale-up.

Table 6. Strategic recommendations for scaling integrated cancer prevention and care for people with mental health problems

Recommendation area	Main actors	Expected contribution to scale-up
Formalise integrated pathways	Service providers, oncology services, mental health services, primary care, social care	Reduces fragmentation and clarifies referral, follow-up and continuity responsibilities
Embed patient navigation and case management	Service providers, patient navigators, NGOs, community services	Supports prevention uptake, screening participation, referral completion and continuity
Adapt communication and person-centred support	Oncology, mental health, primary care, psychosocial and community professionals	Improves accessibility, engagement, shared decision-making and trust
Strengthen governance and financing	Regional and national authorities, commissioners, health system leaders	Embeds integrated care beyond pilot implementation and supports sustainability

Build workforce capacity	Providers, professional bodies, training institutions, authorities	Improves competence in mental health, stigma, diagnostic overshadowing and cross-sector working
Develop monitoring and equity evaluation	Authorities, providers, researchers, patient organisations	Tracks screening participation, continuity, navigation, quality and inequalities
Sustain cross-sector collaboration	Oncology, mental health, public health, social care, NGOs, local authorities	Connects fragmented services into coordinated cancer prevention and care pathways

6.1. Recommendations for service providers and implementing organisations

Service providers and implementing organisations play a central role in reducing fragmentation and improving continuity across cancer prevention and care pathways for people with mental health problems. The CO-CAPTAIN mapping exercise and stakeholder workshops showed that many barriers arise at the operational level of service delivery, particularly during transitions between oncology, mental health, primary care, social care and community services. Hospitals, oncology centres, mental health services, primary care providers, NGOs and community organisations should therefore prioritise practical coordination and continuity mechanisms that can be embedded within routine care delivery.

A first priority is to establish formal referral and communication protocols between oncology, mental health, primary care and social support services. These protocols should clarify responsibilities for prevention, screening follow-up, diagnostic referral, treatment coordination, psychosocial support and continuity across transitions. Named

contact points within services should also be identified to facilitate communication and reduce dependence on informal relationships between individual professionals.

Service providers should embed patient navigation and case management functions within multidisciplinary care teams. Navigation should support prevention and screening participation, appointment coordination, referral completion, psychosocial support, communication between services and continuity during treatment transitions. Importantly, navigation should be connected to existing oncology, mental health, primary care and community support structures rather than operating as an isolated or project-based role.

Adapted communication and person-centred support should become core operational practices across the cancer prevention and care continuum. Services should provide accessible and flexible communication for people experiencing cognitive difficulties, anxiety, severe mental illness, low health literacy and/or social vulnerability. This may include simplified information materials, supported decision-making approaches, reminder systems, accompaniment options, flexible appointment arrangements and the involvement of trusted caregivers or support persons where appropriate and consented.

Multidisciplinary coordination should be strengthened across oncology, mental health, primary care, psycho-oncology, social work and community services. This should include regular communication mechanisms, shared follow-up responsibilities, structured handovers and clearer continuity procedures across prevention, diagnosis, treatment, survivorship and palliative care. These arrangements are essential to ensure that people with mental health problems are not left to self-navigate complex and fragmented systems.

Implementing organisations should also integrate psychosocial and social support within cancer pathways. Psychosocial care should not be limited to psychological distress arising after cancer diagnosis, but should proactively address the emotional, social and practical needs of people with mental health problems throughout the cancer prevention and care continuum. NGOs, patient organisations and community services can play an important role in addressing loneliness, stigma, transport barriers, social isolation and practical support needs beyond hospital settings.

Finally, workforce development should be considered a foundational implementation requirement. Oncology professionals, mental health providers, primary care teams, nurses, social workers, patient navigators and community-based professionals should receive training on mental health awareness, diagnostic overshadowing, stigma, adapted communication, trauma-informed approaches, supported decision-making and continuity-oriented care. Training should also strengthen professionals' confidence and capacity to work collaboratively across sectors and disciplines.

6.2. Recommendations for regional and national health authorities

Regional and national health authorities play a critical role in creating the governance, financing and policy conditions required to scale integrated cancer prevention and care for people with mental health problems. The CO-CAPTAIN findings demonstrate that fragmentation is not only an operational challenge, but also a structural and organisational issue linked to policy separation, fragmented financing arrangements, limited accountability mechanisms and insufficient integration between cancer, mental health, primary care and social care systems.

A first priority is to embed mental health considerations within national and regional cancer prevention and cancer care strategies. Cancer plans, screening policies and oncology pathways should explicitly address the needs of people with mental health problems, including prevention, screening participation, continuity of care, psychosocial support and access inequalities. Similarly, mental health policies should incorporate physical health, prevention and cancer-related coordination responsibilities as part of routine mental healthcare.

Governance arrangements should promote clearer accountability and coordination across sectors. Regional and national authorities should support formal referral protocols, shared care arrangements, named coordination structures and cross-sector governance mechanisms connecting oncology, mental health, primary care, public health, social care and community support systems. Particular attention should be paid

to continuity across transitions in care and to reducing fragmentation between institutional and community-based settings.

Sustainable financing mechanisms are essential to move beyond pilot-based implementation and embed navigation, coordination and psychosocial support as routine functions within cancer prevention and care pathways. Authorities should support stable funding for patient navigation, multidisciplinary coordination, workforce training, community partnerships, digital tools and continuity mechanisms. Financing arrangements should incentivise collaboration and integrated care rather than reinforcing organisational silos and fragmented service delivery.

Workforce planning and capacity-building strategies should also be strengthened. This includes supporting training programmes on integrated care, mental health awareness, cancer prevention, adapted communication, diagnostic overshadowing, navigation and psychosocial support across oncology, primary care, mental health, social care and community-based professions. Workforce planning should recognise patient navigation and coordination functions as legitimate and sustainable components of cancer prevention and care systems.

Digital infrastructure and interoperability should represent another strategic priority. Fragmented information systems currently limit communication, referral tracking, shared care planning and continuity monitoring across services. Regional and national authorities should progressively strengthen interoperable digital systems capable of supporting coordinated care, while ensuring appropriate governance, confidentiality, consent, data protection and safeguards against digital exclusion.

Quality monitoring and equity-oriented evaluation mechanisms should be incorporated into cancer and health system performance frameworks where feasible. Indicators related to screening participation, referral completion, continuity of care, psychosocial support, navigation, treatment access and inequalities affecting people with mental health problems can help identify gaps, monitor implementation and guide continuous improvement.

Finally, authorities should support phased and context-sensitive implementation approaches. The findings across countries show that organisational maturity and implementation readiness vary considerably between settings. Scale-up strategies should therefore build progressively on existing structures, local capacities and readiness levels, rather than imposing rigid or overly standardised implementation models. This phased approach can support realistic implementation while maintaining a shared direction towards more integrated, equitable and person-centred cancer prevention and care.

6.3. Recommendations for cross-sector collaboration

The findings generated through CO-CAPTAIN demonstrate that integrated cancer prevention and care for people with mental health problems cannot be achieved by oncology or mental health services alone. Effective implementation requires sustained collaboration between oncology, mental health, primary care, public health, social care, NGOs, patient organisations, local authorities and community services. These relationships are essential for improving continuity, reducing fragmentation and addressing the psychosocial, practical and social barriers that affect access to prevention and care.

Cross-sector collaboration should move beyond informal or ad hoc communication towards structured and sustainable coordination arrangements. Participating organisations should establish shared referral pathways, communication mechanisms, coordination forums and continuity procedures that support people across the cancer prevention and care continuum, including prevention, screening, diagnosis, treatment, survivorship and palliative care. These arrangements should clarify how information is shared, who is responsible for follow-up, and how transitions between services are managed.

Primary care should play a stronger bridging role between oncology, mental health and community services. General practitioners, nurses and community-based professionals are often well positioned to identify prevention needs, support screening participation, coordinate follow-up and connect people with mental health problems to appropriate

services. Stronger collaboration between primary care and specialised services can help reduce organisational fragmentation and improve continuity for people who experience difficulties navigating complex systems.

NGOs, patient organisations and community-based services should be recognised as strategic implementation partners rather than peripheral actors. Across countries, community organisations were identified as important providers of psychosocial support, outreach, accompaniment, caregiver support, health education and practical assistance. Their involvement is particularly relevant for people experiencing loneliness, stigma, social exclusion, low trust in healthcare systems or practical barriers to accessing prevention and care.

Local authorities and public health actors should also be included in cross-sector collaboration, particularly in relation to prevention, health promotion, screening outreach and community-level implementation. Municipal and regional structures can provide important opportunities for connecting cancer prevention, mental health promotion and social support initiatives within local communities.

Digital governance and information-sharing should be approached collaboratively across sectors. Referral tracking, shared care planning and continuity mechanisms require coordinated agreements between oncology, mental health, primary care, social care and community providers. At the same time, digital implementation should remain proportionate and sensitive to ethical, legal and equity considerations, particularly regarding confidentiality, consent, data protection and digital exclusion.

Participatory implementation should be treated as a core principle of cross-sector collaboration. People with mental health problems, caregivers, peer workers and patient organisations should be actively involved in the design, adaptation, implementation and evaluation of integrated pathways and navigation models. Their involvement can improve acceptability, trust, communication and equity, while ensuring that services remain responsive to lived experience and do not reproduce existing barriers.

Overall, cross-sector collaboration should be understood not as an optional addition to cancer care, but as a foundational condition for delivering integrated, equitable and person-centred cancer prevention and care for people with mental health problems.

6.4. Priorities for sustainability beyond CO-CAPTAIN

CO-CAPTAIN has made significant progress in initiating the sustainability pathway in each country through three key steps: identifying the relevant stakeholders who can support the effective implementation of the patient navigation model in each country; organising workshops that brought these stakeholders together to foster dialogue and thing of practical and context-adapted measures for implementation; and providing them with structured standards and actionable guidance for them to easily identify how to scale-up patient navigation within their regions.

Sustainability beyond CO-CAPTAIN will depend on whether the standards, navigation functions and coordination mechanisms developed through the project are embedded into routine service organisation, policy frameworks and financing arrangements. The central risk is that integrated cancer prevention and care for people with mental health problems remains a time-limited innovation rather than becoming part of routine practice. Long-term sustainability therefore requires moving beyond temporary pilot initiatives towards durable organisational and system-level transformation.

A major priority is the formal integration of patient navigation and coordination functions into existing health and social care systems. Navigation should not remain dependent on short-term project funding or isolated local initiatives. Instead, it should progressively become recognised as a routine component of cancer prevention and care pathways, supported through stable financing, supervision structures, workforce development and governance arrangements.

Avoiding pilot dependency also requires phased and realistic implementation. Countries and regions differ substantially in organisational maturity, workforce capacity, digital readiness and governance structures. Sustainable scale-up should therefore build progressively on existing services, infrastructures and partnerships, rather than relying on parallel systems or large-scale reforms that may not be feasible in all settings.

Workforce sustainability is also essential. Integrated care models require professionals with sufficient time, competencies and organisational support to work across sectors and disciplines. Sustainable implementation therefore depends on long-term investment in workforce training, interdisciplinary collaboration, supervision and protected coordination time across oncology, mental health, primary care, social care and community services.

Governance ownership should be strengthened beyond the duration of the project. National and regional health authorities, oncology networks, mental health systems, public health actors and local organisations should progressively incorporate integrated cancer prevention and care principles into routine planning, quality frameworks and service organisation. Embedding the CO-CAPTAIN standards within cancer plans, mental health strategies, integrated care policies and service specifications may help support long-term institutionalisation.

Digital interoperability and quality monitoring will also be important for sustaining implementation over time. Future scale-up efforts should continue strengthening proportionate and ethically governed systems for referral tracking, shared care planning, continuity monitoring and equity-oriented evaluation. These systems should support implementation learning while respecting confidentiality, consent, data protection and the risk of digital exclusion.

Future research and evaluation remain necessary to support ongoing implementation and adaptation. Additional evidence is needed on the effectiveness, cost implications, organisational impact and long-term outcomes of integrated cancer prevention, navigation and coordination models for people with mental health problems. Comparative learning across countries can also help identify transferable practices, implementation barriers and context-sensitive strategies for scale-up.

Finally, continued European collaboration represents an important opportunity for sustainability and wider uptake. Cross-country cooperation can support shared learning, methodological development, policy alignment and future innovation in integrated cancer prevention and mental health care. European initiatives can help strengthen

equity-oriented implementation approaches while facilitating the exchange of practical experiences and scalable models across diverse health system contexts.

Conclusions

The CO-CAPTAIN project demonstrates that people with mental health problems continue to experience important inequalities across cancer prevention, screening, diagnosis, treatment, survivorship and palliative care. Across participating countries, oncology, mental health, primary care, public health and social support systems largely continue to operate in parallel rather than through integrated and coordinated pathways. This fragmentation contributes to lower prevention and screening uptake, delayed access, discontinuity of care, reduced psychosocial support, difficulties navigating complex systems and persistent inequities in access and outcomes.

At the same time, the findings generated through the systematic review, Delphi consensus process, country mapping exercise and multi-stakeholder workshops show that participating countries already possess many of the structural components required to support more integrated and person-centred cancer prevention and care. Existing screening programmes, oncology infrastructures, primary care systems, psycho-oncology services, mental health services, NGOs and community organisations provide an important foundation for transformation. The principal challenge is therefore not the absence of services, but the limited coordination, continuity and integration between them.

The CO-CAPTAIN standards developed through Deliverable 5.1 provide a practical and transferable framework for addressing these implementation gaps. They highlight the importance of integrated pathways, patient navigation, multidisciplinary coordination, psychosocial and social support, workforce capacity, digital interoperability, quality monitoring and governance mechanisms capable of strengthening continuity across the cancer prevention and care continuum. Importantly, the findings suggest that integrated care should not be understood as a single organisational model, but as a progressive transformation process that can be adapted to different health system contexts and levels of implementation maturity.

Stakeholder workshops across Austria, Greece, Poland and Spain strongly reinforced the relevance of patient navigation and coordination mechanisms as operational responses to fragmentation. Navigation was consistently perceived as a key mechanism for improving prevention and screening participation, supporting continuity across services, reducing organisational complexity and addressing psychosocial and practical barriers. However, stakeholders also emphasised that navigation must be embedded within multidisciplinary and cross-sector systems rather than implemented as an isolated or temporary project-based role.

The local scale-up plans and comparative analysis further demonstrate that countries require phased and context-sensitive implementation approaches. While Austria and Poland showed stronger oncology infrastructures, Greece demonstrated important community mental health and NGO-based coordination potential, and Spain showed strong primary care and screening infrastructures. Despite these differences, all countries identified similar priorities related to coordination, continuity, workforce training, digital interoperability, patient navigation and integration between mental health and cancer prevention and care systems.

A key contribution of this deliverable is the emphasis on prevention-oriented integrated care. Across countries, people with mental health problems continue to encounter barriers to prevention, screening and early detection due to fragmented pathways, limited follow-up mechanisms, insufficient adapted communication, stigma and weak coordination between mental health and screening services. Strengthening integration at earlier stages of the cancer prevention and care continuum therefore represents a critical opportunity to reduce inequalities and improve long-term outcomes.

Beyond the specific context of CO-CAPTAIN, the findings contribute to broader European discussions on equity-oriented integrated care, mental health inclusion and cross-sector collaboration. They underline the need to embed psychosocial, social and community dimensions within cancer prevention and care systems, while strengthening collaboration between healthcare, mental health, public health, social care and community actors.

Finally, sustainable transformation will require long-term organisational and policy commitment beyond pilot implementation. Embedding patient navigation, continuity mechanisms, workforce training, psychosocial integration, quality monitoring and digital interoperability into routine systems will be essential to ensure that integrated cancer prevention and care for people with mental health problems becomes sustainable, scalable and equitable over time. The CO-CAPTAIN standards and local transformation pathways provide an important foundation for supporting this transition across diverse European health system contexts.

REFERENCES

- Ali, S., Santomauro, D., Ferrari, A. J., & Charlson, F. (2022). Excess mortality in severe mental disorders: A systematic review and meta-regression. *Journal of Psychiatric Research*, 149, 97–105. <https://doi.org/10.1016/j.jpsychires.2022.02.036>
- Bentson, T. M., Fløe, L. E., Bruun, J. M., Eriksen, J. G., Johnsen, S. P., Videbech, P., Brogaard, T., Andreassen, P., Mygind, A., Bøndergaard, K. B., & Neergaard, M. A. (2023). Barriers in cancer trajectories of patients with pre-existing severe mental disorders: A systematic review. *Psycho-Oncology*, 32(6), 862–874. <https://doi.org/10.1002/pon.6138>
- Breneol, S., Belliveau, J., Cassidy, C., Curran, J. A., & Graham, I. D. (2022). Strategies to adapt and implement health system guidelines and recommendations: A scoping review. *Health Research Policy and Systems*, 20, 64.
- Busetto, L., Luijkx, K., Calciolari, S., Ortiz, L. G. G., & Vrijhoef, H. J. M. (2018). Barriers and facilitators to workforce changes in integrated care. *International Journal of Integrated Care*, 18(2), 17. <https://doi.org/10.5334/ijic.3587>
- Carmichael, C., Smith, L., Aldasoro, E., Gil Salmerón, A., Alhambra-Borrás, T., Doñate-Martínez, A., Seiler-Ramadas, R., & Grabovac, I. (2023). Exploring the application of the navigation model with people experiencing homelessness: A scoping review. *Journal of Social Distress and Homelessness*, 32(2), 352–366. <https://doi.org/10.1080/10530789.2021.2021363>
- Chan, R. J., Milch, V. E., Crawford-Williams, F., Agbejule, O. A., Joseph, R., Johal, J., Dick, N., Wallen, M. P., Ratcliffe, J., Agarwal, A., Nekhlyudov, L., Tieu, M., Al-Momani, M., Turnbull, S., Sathiaraj, R., Keefe, D., & Hart, N. H. (2023). Patient navigation across the cancer care continuum: An overview of systematic reviews and emerging literature. *CA: A Cancer Journal for Clinicians*, 73(6), 565–589. <https://doi.org/10.3322/caac.21788>
- Chierzi, F., Stivanello, E., Musti, M. A., Perlangeli, V., Marzaroli, P., De Rossi, F., Pandolfi, P., Saponaro, A., Grassi, L., Belvederi Murri, M., Fioritti, A., Berardi, D., & Menchetti, M. (2023). Cancer mortality in common mental disorders: A 10-year retrospective cohort

study. *Social Psychiatry and Psychiatric Epidemiology*, 58(2), 309–318.
<https://doi.org/10.1007/s00127-022-02376-x>

Diogo Gonçalves, S., Santos, A. L., Ramos, C., Valente, F., Jesus, L., Pereira Alexandre, J., & Chyczij, F. (2025). Mental health in Europe after COVID-19: A systematic review of depression, anxiety, and stress among adult primary health care users. *Psychiatry International*, 6(3), 109. <https://doi.org/10.3390/psychiatryint6030109>

Gil-Salmerón, A., Aldasoro, E., Doñate-Martínez, A., Kostyła, M., Wrzesińska, M. A., Fagner, T., Mües, H. M., & Grabovac, I. (2026). *Integrated cancer and mental health care for people living with severe mental illness: Systematic review and narrative synthesis* [Manuscript submitted for publication].

Gil-Salmerón, A., Mües, H., Schäfer, K., Kostyła, M., Wrzesińska, M. A., Bempi, V., & Grabovac, I. (2026). *Operationalising integrated cancer–mental health care: A Delphi study to develop organisational standards for cross-sector integration* [Manuscript submitted for publication].

Glasdam, S., Hybholt, L., & Stjernswärd, S. (2023). Experiences of everyday life among individuals with co-existence of serious mental illness and cancer: A qualitative systematic literature review. *Healthcare*, 11(13).
<https://doi.org/10.3390/healthcare11131897>

Khan, A. I., Arthurs, E., Gradin, S., MacKinnon, M., Sussman, J., & Kukreti, V. (2017). Integrated care planning for cancer patients: A scoping review. *International Journal of Integrated Care*, 17(6), 5. <https://doi.org/10.5334/ijic.2543>

Leahy, D., Donnelly, A., Irwin, K., & D’Alton, P. (2021). Barriers and facilitators to accessing cancer care for people with significant mental health difficulties: A qualitative review and narrative synthesis. *Psycho-Oncology*, 30(12), 2012–2022.
<https://doi.org/10.1002/pon.5848>

Lennox-Chhugani, N. (2021). Integrated care: Defining for the future through the eye of the beholder. *International Journal of Integrated Care*, 21(3), 13.

Lombardo, P., Mussetto, I., Baccolini, V., Di Rosa, E., & Sinopoli, A. (2025). Bridging the gap: Interventions to increase cancer screening adherence in individuals with mental disorders—A systematic review. *Behavioral Sciences*, 15(1). <https://doi.org/10.3390/bs15010047>

Looman, W., Struckmann, V., Köppen, J., Baltaxe, E., Czypionka, T., Huic, M., Pitter, J., Ruths, S., Stokes, J., Bal, R., Rutten-van Mölken, M., & the SELFIE Consortium. (2021). Drivers of successful implementation of integrated care for multi-morbidity: Mechanisms identified in 17 case studies from 8 European countries. *Social Science & Medicine*, 277, 113728. <https://doi.org/10.1016/j.socscimed.2021.113728>

Peytremann-Bridevaux, I., Schussel   Fillettaz, S., Berchtold, P., Grossglauser, M., Pavlickova, A., & Gilles, I. (2021). Healthcare system maturity for integrated care: Results of a Swiss nationwide survey using the SCIROCCO tool. *BMJ Open*, 11(2), e041956. <https://doi.org/10.1136/bmjopen-2020-041956>

Riis, N., Vestergaard, M., Neergaard, M. A., Alsner, J., Eriksen, J. G., Videbech, P., Mygind, A., Johnsen, S. P., Valentin, J. B., & Fl  e, L. E. (2026). The impact of preexisting severe mental disorders on cancer mortality: A systematic review and meta-analysis. *Acta Psychiatrica Scandinavica*, 153(3), 158–178. <https://doi.org/10.1111/acps.70054>

Sch  fer, K., M  es, H. M., Wrzesi  nska, M. A., Kosty  la, M., Rakoczy, J., Gomez Trenado, R., Fern  ndez Garc  a, C., Pisano Gonz  lez, M., Mancebo Salas, N., Gogos, T., Zioga, I., Radaios, V., Gil-Salmeron, A., & Grabovac, I. (2026). “Although I’m mentally ill, that doesn’t mean that I’m not also physically ill”: Barriers, facilitators and diagnostic overshadowing in healthcare for individuals with lived experience of mental ill-health. *Frontiers in Public Health*, 14, Article 1739409. <https://doi.org/10.3389/fpubh.2026.1739409>

Sullivan-Taylor, P., Suter, E., Laxton, S., Oelke, N. D., & Park, E. (2022). Integrated people-centred care in Canada: Policies, standards, and implementation tools to improve outcomes. *International Journal of Integrated Care*, 22(1), 8. <https://doi.org/10.5334/ijic.5943>

Svansson, H., B  ndergaard, K., Videbech, P., Nielsen, M. K., M  ller, J. E., Fl  e, L. E., Bentson, T. M., & Neergaard, M. A. (2024). End-of-life care for cancer patients with pre-

existing severe mental disorders: A systematic review. *Annals of Palliative Medicine*, 13(3), 674–684. <https://doi.org/10.21037/apm-23-589>

Vendelsøe, A. N. H., Stie, M., Hjorth, P., Søndergaard, J., Hansen, D. G., & Jensen, L. H. (2025). "I just felt that everything came tumbling down around me": Barriers in cancer care for patients with severe mental illness: A qualitative study. *PLOS ONE*, 20(1), e0314313. <https://doi.org/10.1371/journal.pone.0314313>

Videbech, N. M., Valentin, J. B., Knudsen, S. V., Vestergaard, A. H. S., Vestergaard, M., Rasmussen, T. R., Tipsmark, L. S., Johnsen, S. P., Neergaard, M. A., & Simoni, A. H. (2025). Disparity in health care in end-of-life among patients with lung cancer and pre-existing mental disorders: A nationwide cohort study. *Palliative Medicine*, 39(7), 803–813. <https://doi.org/10.1177/02692163251344133>

WHO Regional Office for Europe. (2026). *Mental health*. Retrieved January 20, 2026, from <https://www.who.int/europe/news-room/fact-sheets/item/mental-health>

Wienand, D., Wijnen, L. I., Heilig, D., Wippel, C., Arango, C., Knudsen, G. M., Goodwin, G. M., & Simon, J. (2024). Comorbid physical health burden of serious mental health disorders in 32 European countries. *BMJ Mental Health*, 27(1). <https://doi.org/10.1136/bmjment-2024-301021>



CO-CAPTAIN

Cancer prevention among individuals with mental ill-health: CO-adapting
and implementing patient navigation for primary cancer prevention